DOCUMENT RESUME

ED 238 965 UD 023 091

| | |
|---|---|
| TITLE | Elementary and Secondary Programs, ESEA Title I. Final Report, 1982. |
| INSTITUTION | Vazquez-Nuttall Associates, Inc., Newton, MA. |
| SPONS AGENCY | Boston Public Schools, Mass. |
| PUB DATE | 82 |
| NOTE | 86p.; For related document, see UD 023 077. |
| PUB TYPE | Reports - Evaluative/Feasibility (142) |
| EDRS PRICE | MF01/PC04 Plus Postage. |
| DESCRIPTORS | *Compensatory Education; *Educationally Disadvantaged; Elementary Secondary Education; *Gifted; Language Arts; Pilot Projects; *Program Effectiveness; Program Evaluation; *Remedial Mathematics; Remedial Programs; *Remedial Reading |
| IDENTIFIERS | Massachusetts (Boston) |

ABSTRACT

Boston's 1981-82 Title I program, consisting of supplementary reading instruction in the elementary grades and reading and language arts at the middle and secondary levels, is evaluated in this report. In the elementary grades, the average pre-post test gain was well above the program success criterion. On the average, a greater percentage of parochial students than public or private school students accomplished the reading performance objectives. In the middle schools, the average pre-post gain was also well above the program success criterion. A greater proportion of parochial school and reading lab students than public school and regular Title I students accomplished the performance objectives. In the high schools, the average pre-post gain exceeded the target except in Grade 12 for language arts. Overall, more public than parochial school students accomplished the performance objectives. On the average, there appeared to be a relationship between attendance and pre-post gains at the elementary and high school levels. Reading scores declined for students in the Potentially Gifted Program (a Title I pilot program), although actual posttest scores were about the same as for the regular Title I comparison group. A much higher proportion of pilot program students were above the target criteria in reading performance objectives than were regular Title I students. (CMG)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED238965

Vázquez, Nuttall Associates, Inc.

"Research & Evaluation in Social Sciences, Health & Education"

FINAL REPORT

# ELEMENTARY AND SECONDARY PROGRAMS
# ESEA TITLE I

Project Number: 429 (82)

1982

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Margaret M. Callahan
Boston Public Schools
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Submitted to:

The School Committee of the City of Boston
Department of Title I Programs
Office of Research and Evaluation
26 Court Street
Boston, Massachusetts

Submitted by:

Vazquez-Nuttall Associates, Inc.
106 Washington Street
Newton, Massachusetts 02158
(617) 965-0240

UD023 091

MARGARET M. CALLAHAN
Chapter I Program
26 Court St., 3rd fl.
Boston, MA 02108

TABLE OF CONTENTS


Page

EXECUTIVE SUMMARY AND RECOMMENDATIONS . . . . . 1

I. INTRODUCTION. . . . . 1

II. GENERAL DESCRIPTION OF THE TITLE I PROGRAM. . . . . 3

III. EVALUATION DESIGN . . . . . 5

IV. ELEMENTARY PROGRAM. . . . . 9

A. Program Description . . . . . 9

B. Summative Evaluation Results. . . . . 10

C. Results of the Achievement of Performance Objectives . . . . . .28

V. MIDDLE SCHOOL PROGRAM . . . . . 31

A. Program Description . . . . . 31

B. Summative Evaluation Results. . . . . 32

1. Reading. . . . . 32

2. Language Arts. . . . . 43

3. Performance Objectives . . . . . 48

VI. HIGH SCHOOL PROGRAM. . . . . 50

A. Program Description . . . . . 50

B. Summative Evaluation Results. . . . . 51

1. Reading. . . . . 51

2. Language Arts. . . . . 58

3. Performance Objectives . . . . . 62

VII. POTENTIALLY GIFTED PROGRAM - HOLLAND SCHOOL . . . . . 64

A. Program Description . . . . . 64

B. Summative Evaluation Results. . . . . 65

LIST OF TABLES


TABLE 1 - Summary of NCE Reading Scores of All Students on the M.A.T. by School Type and Grade Level . . . . . III

TABLE 2 - Summary of NCe Reading Scores of All Students on the M.A.T. by School Level . . . . . III

TABLE 3 - Summary of NCE Total Language Scores of Students n Grades 6-12 on the C.A.T. by School Type and Grade Level . . . . . Iv

TABLE 4 - Summary of NCE Total Language In Grades 6-12 on the C.A.T. by School Level . . . . . Iv

TABLE 5 - Summary of Mean Attendance by School Type and Grade . . . . v

TABLE 6 - Total Attendance by School Level. . . . . v

TABLE III-1 Enrollment of Title I Students by Type of School. . . . . 5

TABLE III-2 Number of Students Pre and Post Tested on the M.A.T.. . . . 6

TABLE III-3 Number of Students Who Were Pre and Post Tested on the C.A.T. 7

TABLE IV-1 Summary of NCE Reading Scores of Elementary Students on the M.A.T. by Grade . . . . . 10

TABLE IV-2 Summary of NCE Reading Scores of Elementary Students on the M.A.T. by School Type and Grade Level . . . . . 11

TABLE IV-3 Number of Elementary School Students Who Increased Their Scores 1 NCE on the M.A.T. by School Type and Grade . . . . 13

TABLE IV-4 Mean Attendance by Grade and School Type-Elementary Students 14

TABLE IV-5 Summary of NCE Reading Scores of Elementary Students on the M.A.T. by School. . . . . 15

TABLE IV-6 A Comparison of NCE Scores Between Elementary Public School Students Having Small Group Instruction and Those Having NCEC Instruction on the M.A.T. . . . . 17

TABLE IV-7 Mean Elementary School Attendance by School-Grades 1-5. . . 18

TABLE IV-8 Number and Percent of Elementary School Students Who Increased Their Scores 1 NCE on the M.A.T. by School Type and Grade . 20

TABLE IV-9 Reading Performance Objectives-Elementary Students. . . . . 28

TABLE IV-10 Achievement of Performance Objectives-Elementary Students . 30

TABLE V-1 Summary of NCE Reading Scores of Middle School Students on the M.A.T. by Grade . . . . . 32

TABLE V-2 Summary of NCE Reading Scores of Middle School Students on the M.A.T. by School Type and Grade . . . . . 33

LIST OF TABLES (CONT.)


| | | |
|---|---|---|
| TABLE V-3 | Number and Percent of Middle School Students Who Increased Their Scores 1 NCE on the M.A.T. by School Type and Grade . | 34 |
| TABLE V-4 | Mean Attendance by School Type and Grade-Middle School . . . | 35 |
| TABLE V-5 | Summary of NCE Reading Scores of Middle School Students on the M.A.T. by School. . . . . | 36 |
| TABLE V-6 | Mean Attendance by School-Middle School Students. . . . . | 38 |
| TABLE V-7 | Number and Percent of Middle School Students Who Increased Their Score 1 NCE on the M.A.T. by School Type and Grade. . | 39 |
| TABLE V-8 | A Comparison of NCE Scores Between Students Having Small Group Instruction and Those Having NCEC Instruction at the McCormack School. . . . . | 42 |
| TABLE V-9 | Summary of NCE Scores on the Language Arts Subtests of the C.A.T. for Public Middle School Students. . . . . | 44 |
| TABLE V-10 | Summary of NCE Scores on the Language Arts Subtests of the C.A.T. for Parochial and Private Middle School Students . . | 46 |
| TABLE V-11 | Summary of NCE Scores on the Language Arts Subtests of the C.A.T. for All Middle School Students . . . . . | 47 |
| TABLE V-12 | Achievement of Performance Objectives-Middle School Students | 49 |
| TABLE VI-1 | Summary of NCE Reading Scores of High School Students on the M.A.T. by Grade . . . . . | 51 |
| TABLE VI-2 | Summary of NCE Reading Scores of High School Students on the M.A.T. by School Type and Grade . . . . . | 52 |
| TABLE VI-3 | Number and Percent of High School Students Who Increased Their Score 1 NCE on the M.A.T. by School Type and Grade. . | 53 |
| TABLE VI-4 | Mean High School Attendance by Grade. . . . . | 55 |
| TABLE VI-5 | Summary of NCE Reading Scores of High School Students on the M.A.T. by School. . . . . | 55 |
| TABLE VI-6 | Number of High School Students Who Increased Their Scores 1 NCE on the M.A.T. by School and Grade . . . . . | 56 |
| TABLE VI-7 | Mean High School Attendance by School . . . . . | 57 |
| TABLE VI-8 | Summary of NCE Scores on the Language Arts Subtests of the C.A.T. for Public High School Students. . . . . | 59 |
| TABLE VI-9 | Summary of Mean NCE Scores on the Language Arts Subtests of the C.A.T. for Parochial High School Students . . . . . | 60 |

## LIST OF TABLES (CONT.)


TABLE VI-10 Summary of Mean NCE Scores on the Language Arts Subtests of the C.A.T. for Combined Public and Parochial High School Students. . . . . 61

TABLE VI-11 Achievement of Performance Objectives-High School Students. 63

TABLE VII-1 Holland School-Mean NCE Scores on the M.A.T. for Potentially Gifted and Regular Title I Small Group Instruction Comparison Group. . . . . 65

TABLE VII-2 Mean Days of Attendance of Potentially Gifted and Regular Title I Comparison Group at the Holland School. . . . . 67

TABLE VII-3 Potentially Gifted and Comparison Group of Regular Title I Students Achievement on Reading Performance Objectives. . . 68

## EXECUTIVE SUMMARY

This report, prepared in cooperation with the Title I Office of Research and Evaluation, presents the summative evaluation of the Boston ESEA Title I Program for the academic year 1981-82. The Title I Program consisted of supplementary reading instruction in the elementary grades and reading and language arts at the secondary level.

Collection of the test scores, attendance and Performance Objectives data was done by Miss Margaret Callahan, Associate Director of Title I. Miss Callahan also provided extensive support and assistance in the evaluation process.

Findings in this report are presented by school levels--elementary, middle and high school. Findings are also presented for each school, and for each type of school (Public, Parochial, or Private). At the elementary and middle school levels, scores are compared for the regular Title I small-group program and for the NCEC Lab program which utilizes individualized programmed learning methods. In addition there is a chapter on the pilot Potentially Gifted Program at the Holland School.

Title I is part of the Elementary and Secondary Education Act of 1965. The main purpose of the program is to give federal aid to educationally disadvantaged childen from low income areas. During the 1981-82 school year Title I instruction was provided to approximately 12,000 pupils in 140 Boston schools.

The measures of student success in the Title I program are 1) a one normal curve equivalent (NCE)* gain on appropriate achievement tests and 2)

---

* A one NCE gain means that the student has gained in comparison to the average of the national student norming groups.

accomplishment of 85% of the objectives outlined for the student's instructional level.

For the Evaluation Design this year the Boston Public Schools administration decided that this evaluation would focus only on Title I schools in Districts II, III, VI. In our interim report VNA recommended that in future evaluations the entire city be included, especially at the middle school and high school levels. Cognitive gains in reading were measured through the administration of the Metropolitan Achievement Test, 1978 edition.

Cognitive gains in language arts, at the middle and high school levels, were measured through the administration of the California Achievement Test, 1977 Edition. In addition to achievement tests, performance objectives were used during the year to assess student gains in the Title I program.

The following tables provide the reader with a summary of reading test results on the Metropolitan Achievement Test, total language gains on the California Achievement Test and mean attendance by school type and level. Middle school students made the largest NCE gains on the Metropolitan in all three school types--public, parochial and private (refer to Table 1 and 2).

Table 1

Summary of NCE Reading Scores of Students In Grades 2 - 12
on the Merropolitan Achievement Test by School Type and Grade Level

| PUBLIC SCHOOLS | | | | |
|---|---|---|---|---|
| | | NCE Scores | | |
| School Level | N | Pre | Post | Gain |
| Elementary: Grades 2-5 | 1,198 | 33.4 | 42.5 | 9.1 |
| Middle: Grades 6-8 | 594 | 23.8 | 35.1 | 11.3 |
| High: Grades 9-12 | 138 | 22.3 | 24.3 | 2.0 |
| Total: Grades 2-12 | 1,930* | 29.65 | 38.92 | 9.3 |

| PAROCHIAL SCHOOLS | | | | |
|---|---|---|---|---|
| | | NCE Scores | | |
| School Level | N | Pre | Post | Gain |
| Elementary: Grades 2-5 | 433 | 37.2 | 39.1 | 1.9 |
| Middle: Grades 6-8 | 271 | 37.0 | 42.6 | 5.6 |
| High: Grades 9-12 | 46 | 33.2 | 38.3 | 5.1 |
| Total: Grades 2-12 | 750 | 36.88 | 40.32 | 3.4 |

| PRIVATE SCHOOLS | | | | |
|---|---|---|---|---|
| | | NCE Scores | | |
| School Level | N | Pre | Post | Gain |
| Elementary: Grades 2-5 | 40 | 34.7 | 32.8 | -1.9 |
| Middle: Grades 6 Only | 7 | 34.8 | 31.4 | 3.4 |
| Total: Grades 2-6 | 47 | 34.71 | 32.59 | -2.12 |

Table 2

Summary on NCE Reading Scores of Students In Grades 2 - 12
on the Metropolitan Achievement Test by School Level

| | | NCE SCORES | | |
|---|---|---|---|---|
| School Level and Grades | N | Pre | Post | Gain |
| Elementary: Grades 2-5 | 1,671 | 34.4 | 41.4 | 7.0 |
| Middle: Grades 6-8 | 872 | 27.9 | 37.4 | 9.5 |
| High: Grades 9-12 | 184 | 25.0 | 27.8 | 2.8 |
| Total: Grades 2-12 | 2,727 | 31.7 | 39.2 | 7.5 |

In the public schools middle school students taking the California Achievement Test made larger gains than high school students. However, in the parochial and private sector gains were similar.

Table 3

Summary of NCE Total Language Scores of Students in Grades 6-12 on the California Achievement Test by School Type and Grade Level

| School Level | N | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|
| **PUBLIC SCHOOLS** | | | | |
| Middle: Grades 6-8 | 336 | 26.02 | 32.78 | 6.76 |
| High: Grades 9-12 | 120 | 27.72 | 28.93 | 1.21 |
| Total: Grades 6-12 | 456 | 26.47 | 31.77 | 5.3 |
| **PAROCHIAL AND PRIVATE SCHOOLS** | | | | |
| Middle: Grades 6-8 | 195 | 45.23 | 50.14 | 4.9 |
| High: Grades 9-12 | 41 | 38.15 | 43.16 | 5.0 |
| Total: Grades 6-12 | 236 | 44.0 | 48.93 | 4.9 |

Table 4

Summary of NCE Total Language Scores in Grades 6-12 on the California Achievement Test by School Level

| School Level | N | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|
| Middle: Grades 6-8 | 531 | 33.07 | 39.16 | 6.1 |
| High: Grades 9-12 | 161 | 30.38 | 32.55 | 2.2 |
| Total: Grades 6-12 | 692 | 32.44 | 37.62 | 5.2 |

Attendance was taken from October 1st through May 15th, a total of approximately 140 days. Since students in the parochial high school were pre-selected in the spring, they began Title I classes immediately.

Mean attendance was highest for parochial high school students and lowest for private school students (Table 5). In comparing students across grade levels (elementary, middle and high) elementary students had the best record followed by high and middle school students (refer to Table 6).

Table 5

Summary of Mean Attendance
by School Type and Grade

| | N | Mean Attendance |
|---|---|---|
| PUBLIC SCHOOLS | | |
| Elementary | 1,596 | 112.7 |
| Middle | 594 | 95.0 |
| High | 138 | 98.2 |
| PAROCHIAL SCHOOLS | | |
| Elementary | 567 | 104.8 |
| Middle | 271 | 110.4 |
| High | 46 | 122.9 |
| PRIVATE SCHOOLS | | |
| Elementary | 51 | 93.1 |
| Middle | 7 | 89.1 |

Table 6

Total Attendance by School Level

| | N | Mean Attendance |
|---|---|---|
| Elementary: Grades 1-5 | 2,214 | 110.2 |
| Middle: Grades 6-8 | 872 | 99.5 |
| High: Grades 9-12 | 184 | 103.8 |

Major findings for elementary, middle, high school and potentially gifted students are reported on the following pages.

## Results for Elementary Schools

For Title I students in each elementary school grade in the districts being evaluated, the average NCE gain on the Metropolitan Achievement Test exceeded the program objective of a 1.0 NCE gain.

Among elementary school students pre-post tested on the Metropolitan Achievement Test, 72% of the public school students attained at least 1 NCE gain, while only 54% of the parochial school students and 43% of the private school students met the objective. The remainder of the students either held their own or dropped in their standing relative to national norms.

Considering the entire Boston Title I program, including all schools we can conclude that:

The average gain across all elementary grades and all schools in the Boston Title I program was 7.0 NCE points, well in excess of the goal of 1.0 NCE points.

On the average, there does appear to be a relationship between attendance and NCE gains at the elementary school level.

The public elementary schools showed a wider range of NCE gains than either the parochial or private schools. Only 1 of 24 public schools showed an average NCE loss, while 3 out of 10 parochial schools, and both private schools showed average losses from pre-to-post test. The NCEC program at the Dever School has been highly successful, in terms of achieving the second highest NCE gain (16.9) among all elementary schools evaluated.

The NCEC program at the Dever School is highly successful in terms of having average gains that exceed the regular Title I program average gains at every elementary grade level.

The proportion of students attaining the minimum Title I objective of 1 NCE gain varied from school to school, with the greatest range of variation among the public schools.

On the average a greater percentage of parochial students achieved the expected reading performance objectives (68%) than did public (59%) or private (62%) school students.

## Results for Middle School Students

For Title I students in each middle school grade in the districts being evaluated, the average NCE gain on the Metropolitan Achievement Test significantly exceeded the program objective of a 1.0 NCE gain.

Among middle school students pre-post tested on the Metropolitan Achievement Test, 77% of the public school students attained at least 1 NCE gain, while only 71% of the parochial school students and only 43% of the private school students met the objective. The remainder of the students either held their own or dropped in their standing relative to national norms.

There seems to be little correlation between attendance and NCE gains.

There was a great variation in pre to post test change among the 20 middle schools, ranging from a 3.4 drop to a 16.0 gain. Some of the greatest gains occured among schools with the lowest average pre-test scores.

The prevalance of attainment of the minimum Title I objective of 1 NCE gain varied from school to school and from class to class within schools.

On the average, New Century Lab students at the Middle Schools evaluated achieved greater pre-to-post test gains than regular Title I students.

On pre-post California Achievement Test of Language Arts public middle school students in all three grades met or exceeded the target of 1.0 gains in NCE points.

Sixth grade students made the largest total language NCE gains. The largest spelling NCE gains were made by seventh grade students.

On pre-post California Achievement Tests of Language Arts parochial and private students in all three grades and on all three subtests met or exceeded the target of 1.0 gains in NCE points.

Grade seven students had the largest total language NCE gain.

Using the measure of 85% accomplishment of a greater proportion of performance objectives, a greater proportion of parochial than public, and NCEC than regular Title I students, achieved the goal.

## High School Results

The average NCE gain for the Title I ninth, tenth, eleventh and twelfth graders in the districts being evaluated exceeded the program objective of a 1.0 NCE gain.

Title I program gains of at least 1.0 NCE points were found in only 51 percent of the students evaluated at the high school level. The remaining 49 percent held their own or slipped behind their position relative to the national norming group.

Among the students pre-post tested at the high school level, 67 percent of the parochial school students attained at least a 1.0 NCE gain, while fewer than half of the public school students obtained this minumum program objective.

On the average there does appear to be a relationship between attendance and NCE gains at the high school level.

The NCE gains on the Metropolitan Achievement Test were higher at Cardinal Cushing High School and South Boston High School than they were at Jamaica Plain High School. Attendance records alone do not account for this difference.

On pre-post California Achievement Tests of Language Arts, public school students in grades nine and eleven exceeded the target of 1.0 gain in NCE points.

For the Total Language and Spelling tests, parochial students at all grade levels had mean gains exceeding the 1.0 NCE target.

Except in grade twelve, the average gain for all high school students exceeded the target of 1.0 NCE points.

Overall, more public than parochial school students achieved 85% of the performance objectives.

In general the high school students did much better on the reading objectives than on the study skill objectives.

## Pilot Potentially Gifted Program Results

In summary, the conclusions which can be drawn from the Holland School Pilot Program for Potentially Gifted Title I students are as follows:

There is substantial evidence of an actual <u>decline</u> in NCE reading scores from pre to post testing among the pilot potentially gifted students.

Actual post-test NCE reading scores for the regular Title I comparison group and the pilot potentially gifted group were about the same.

The potentially gifted group achieved significantly higher attendance during the year, averaging about 20 more days per child attendance compared to the regular Title I comparison group.

A much higher proportion (91%) of the ratings for reading performance objectives for the potentially gifted students were above the target criteria than for the regular Title I group (52%).

## RECOMMENDATIONS

In this section the major recommendations for the Boston Title I program for 1981-1982 are presented. The recommendations are based on the three district sample used in the evaluation design. Since only a few high schools were represented this design had unfortunate affects on the evaluation of the secondary program.

Recommendation 1: The Boston Title I program should continue.

Discussion The Boston Title I program has been successful in improving reading scores, and should continue next year.

Recommendation 2: The NCEC Lab program should be retained and expanded if possible.

Discussion This year, as in past years, the New Century Education Center Lab program has proven to be a superior way to increase reading scores. New labs in additional schools should be created if at all possible.

Recommendation 3: The Pilot Potentially Gifted program at the Holland School should be revised or ended and should not be expanded to additional schools.

Discussion The pilot program has shown a major strength in increasing student attendance and in the high percentage of students rated as achieving their behavioral objectives. However a strong decline in reading scores relative to national norms counts heavily against the program. At present the program needs to have major restructuring of its curriculum to increase its effectiveness in teaching reading skills. At the same time the valuable approach the program has made to increasing student motivation and attendance should be examined for possible use in the regular program.

Recommendation 4: A serious re-examination of the procedure used for the public high school program in Title I should take place. If the effectiveness of the program cannot be improved, thought should be given to dropping the Chapter I program at the secondary level.

Discussion While the three-district evalution plan makes these data likely to be non-representative of the city as a whole, from the findings this year the public high school Title I program has continued to lag behind the effectiveness of the Public Elementary and Public Middle, as well as

the Parochial High School program in terms of reading score improvements. With this continued low efficiency, the Chapter 1 resources for coming years may well be better spent in expanding the programs at the elementary or middle school levels rather than continuing the high school program. Alternatively, procedures should be set in place to improve the effectiveness of the Public High School program. One major issue is continuity. A large proportion of the public high school Title I students do not remain in the program all year. Effective teaching at this level can be done, as evidenced by the parochial high school program. Perhaps the differences between the public and parochial program at the high school level could be carefully examined in order to improve the public high school program's effectiveness.

Recommendation 5: Some of the more effective techniques used in the public school Title I program, such as NCEC labs, should be considered for use in the Parochial School Elementary program.

Discussion The Parochial School Elementary Title I program this year lagged considerably in terms of reading skill improvements. One possible way to improve this performance may be to install an NCEC Lab in one or more of the larger parochial schools. Another possibility may be additional training for the Title I teachers assigned to these schools or curriculum modification to fit into the parochial school situation. Due to the disruptions of extensive teacher layoffs this year the parochial school teaching staff was in many cases, new to Title I.

Recommendation 6: The evaluation design in the future should include all schools and districts.

Discussion Especially at the secondary level, having only three districts evaluated resulted in small samples and less certain conclusions. Furthermore, not doing pre and post testing in all schools jeopardizes the federally mandated Sustained Effects Studies.

Recommendation 7: At the High School level, in particular, much greater attention needs to be given to stability of program participation.

Discussion An unusually large number of students, about 105 out of 289 in the three districts evaluated, participated in the Title I program but did not take both pre and post-tests. This drop out rate was especially high at the high school level. If there is to be a high school program - it should be designed so that students can stay with it all year.

# I. INTRODUCTION

This report, prepared in cooperation with the Title I Office of Research and Evaluation, presents the summative evaluation of the Boston ESEA Title I Program for the academic year 1981-82. The Title I Program consisted of supplementary reading instruction in the elementary grades and reading and language arts at the secondary level.

Collection of the test scores, attendance and performance objectives data was done by Miss Margaret Callahan, Associate Director of Title I. Miss Callahan also provided extensive support and assistance in the evaluation process.

In this summative report, the results of standardized pre-post testing results are presented and student achievements of performance objectives are discussed. Students in grades two through twelve were pre-post tested on the Metropolitan Achievement Test to measure cognitive gains in reading and secondary students were pre-post tested on the California Achievement Test (1977 edition) to measure cognitive gains in language arts. Achievement of performance objectives was measured by teacher ratings.

Findings in this report are presented by school levels--elementary, middle and high school. Findings are also presented for each school, and for each type of school (Public, Parochial, or Private). At the elementary and middle school levels, scores are compared for the regular Title I tutorial program and for the NCEC Lab program which utilizes individualized programmed learning methods. In addition there is a chapter on the pilot Potentially Gifted Program at the Holland School.

A formative evaluation report, describing the operation of the program during the first half of the school year was submitted earlier under separate

cover. In addition to observations of classroom activities, the formative report focused on two broad areas of policy concern. One was the impact of financial cutbacks and the other involved reactions to potential program changes, (notably alternatives to the current model of pulling students out of their regular classes to allow them to attend Title I sessions). Formative data was collected through a combination of classroom visits, interviews and questionnaires.

## II. GENERAL DESCRIPTION OF THE TITLE I PROGRAM

Title I is part of the Elementary and Secondary Education Act of 1965. The main purpose of the program is to give federal aid to educationally disadvantaged children from low income areas.

To determine Title I eligibility, Boston is surveyed every year to find the number of low-income families in each of the city's 861 population units or geocodes. Those district schools having a high concentration of low income residents are eligible for Title I services. Once a school is eligible for Title I services, all students in that school are eligible. In the non-district or magnet schools, all students living in an eligible geocode are eligible for Title I.

During the 1981-82 school year Title I instruction was provided to approximately 12,000 pupils in 140 Boston schools. The number of Title I students at each school level is as follows:

**Number of Schools Receiving Title I services 1981-82**

| | |
|---|---|
| Elementary: | 64 public, 31 private |
| Middle: | 22 public, 9 private |
| High School: | 10 public, 4 private |

Within schools those children having the greatest educational need are selected for Title I services. Need is demonstrated by a score below the fortieth percentile on the Metropolitan Reading test.

Students attend Title I classes one period a day five days a week in addition to their regular program. Individualized instruction is delivered by a Title I teacher to a maximum group size of eight students at the elementary level, nine at the middle school level and ten students at the secondary

level. A paraprofessional assists in the instructional process. There are also three New Century Lab classes in the districts being evaluated which have an average class size of thirty, meet 45 minutes each day, and utilize principals of programmed learning. In addition there is a pilot program for Potentially Gifted Students at the Holland School which was evaluated this year, even though the Holland School is not in the three districts included in the rest of the evaluation design.

In response to budget cutbacks this year, several staffing changes took place. At the administrative level, seven positions were eliminated; three of these in the area of staff development. At the school level, the number of paraprofessionals was reduced, with several paraprofessionals dividing their time among two or more schools. Clerical aides were eliminated altogether.

In addition to the staffing changes, the Title I math program and the Early Childhood Programs were eliminated entirely.

As will be seen in the program description for each of the school levels, the measures of student success in the Title I program are 1) a one normal curve equivalent (NCE)* gain on appropriate achievement tests and 2) accomplishment of 85% of the objectives outlined for the student's instructional level.

---

* A one NCE gain means that the student has gained in comparison to the average of the national student norming groups.

## III. EVALUATION DESIGN

### Schools Evaluated

The Boston Public Schools administration decided that this evaluation would focus only on Title I schools in Districts II, III, VI. In addition, a gifted and talented program at the Holland School in District V was evaluated.

Table III-1
Enrollment of Title I Students in Districts II, III, and VI and Holland School Potentially Gifted Program By Type of School

| Elementary Schools - Grades 1-5 District | Public | Parochial | Private | Totals |
|---|---|---|---|---|
| II | 765 | 125 | 38 | 928 |
| III | 554 | 42 | -- | 596 |
| VI | 897 | 452 | 21 | 1,370 |
| Holland Potentially Gifted Program | 8 | -- | -- | 8 |
| Total Elementary for Districts & Holland | 2,224 | 619 | 59 | 2,902 |
| **Middle Schools - Grades 6-8 District** | **Public** | **Parochial** | **Private** | **Totals** |
| II | 405 | 60 | -- | 465 |
| III | 90 | 81 | -- | 171 |
| VI | 455 | 176 | -- | 631 |
| Total Middle School for three Districts | 950 | 317 | -- | 1,267 |
| **High Schools - Grades 9-12 District** | **Public** | **Parochial** | **Private** | **Totals** |
| II | 180 | -- | -- | 180 |
| III | -- | -- | -- | -- |
| VI | 61 | 48 | -- | 109 |
| Total High School for three Districts | 241 | 48 | -- | 289 |
| **Total for Three Districts** | **3,415** | **984** | **59** | **4,618** |

The decision to only include three districts in the evaluation was mandated outside of the Title I administration. In our interim report VNA recommended that in future evaluations the entire city be included, especially at the middle school and high school level. Table III-1 shows the number of students who were enrolled at each school level in the districts evaluated.

Metropolitan Achievement Test - Reading

Cognitive gains in reading were measured through the administration of the Metropolitan Achievement Test, 1978 edition. Students were pre-tested in October and post-tested in May. Testing dates were within two weeks of the national norming dates required by the RMC Model A design. While students in grades two through twelve were pre-post tested, students in grade one were post-tested only.

In this report, scores are presented only for those students in grades two through five who were both pre and post tested (except that post-tests only are given for the first grade). Table III-2 shows the total number of students in grades two through twelve and the number who were pre-post tested.

Table III-2

Number of Students in Title I Program who were Pre and Post Tested on the Metropolitan Achievement Test, by School Level and School Type

| School Level and School Type | N Enrolled in Title I | N Pre and Post Tested | Percent Pre and Post Tested |
|---|---|---|---|
| ELEMENTARY SCHOOLS - Grades 2-5 | | | |
| Public | 1,722 | 1,198 | 70% |
| Parochial | 484 | 433 | 89% |
| Private | 49 | 40 | 82% |
| Holland Potentially Gifted Program | 8 | 8 | 100% |
| Total | 2,263 | 1,679 | 74% |
| MIDDLE SCHOOLS - Grades 6-8 | | | |
| Public | 950 | 594 | 63% |
| Parochial | 317 | 271 | 85% |
| Private | 9 | 7 | 77% |
| Total | 1,276 | 872 | 68% |
| HIGH SCHOOLS - Grades 9-12 | | | |
| Public | 241 | 138 | 57% |
| Parochial | 48 | 46 | 96% |
| Total | 289 | 184 | 64% |
| GRAND TOTAL | 3,828 | 2,735 | 71% |

* Enrollment - Source: Title I administrators, November, 1982.

California Achievement Test/Language Arts

Cognitive gains in language arts, at the middle and high school levels, were measured through the administration of the California Achievement Test, 1977 Edition. Students were pretested in October and post-tested in May, within two weeks of the national norming dates required by the RMC Model A Evaluation Design.

In this report, scores are presented for students who were pre-post tested on each of the three sections of the test (Spelling, Language Mechanics, and Language Expression). Table III-3 shows the proportion of Title I Middle and High school students who were pre-post tested on the entire CAT test. Figures are shown by school level (Middle and High) and type (Public and Private). The Table III-3 shows that overall, 64% of all Title I Middle and High school students were pre and post-tested, and as many as 87% of the smaller private and parochial schools were so tested.

Table III-3

Number of Students in Title I Program who were Pre and Post Tested on California Achievement Test, by School Level and Type

| School Level and School Type* | N Enrolled in Title I** | N Pre and Post Tested*** | Percent Pre and Post Tested |
|---|---|---|---|
| MIDDLE SCHOOLS | | | |
| Public | 819 | 336 | 41% |
| Parochial | 223 | 195 | 87% |
| Total | 1,042 | 531 | 51% |
| HIGH SCHOOLS | | | |
| Public | 241 | 120 | 50% |
| Parochial | 48 | 41 | 85% |
| Total | 289 | 161 | 56% |
| GRAND TOTAL | 1,331 | 692 | 52% |

* Elementary school students were not given California Achievement Test.

** Enrollment Source: Title I Administrators, November 1982. Sixth grade students administered under elementary school programs were not given the California. For public middle schools 130 students in the Lewis School were removed from the number enrolled since the Lewis School did not have language objectives.

*** Students pre and post tested on all three sections of the test.

## Performance Objectives

In addition to achievement tests, performance objectives were used during the year to assess student gains in the Title I program. The performance objectives for each reading level (Reading Readiness to 6) are described in the document entitled Reading Performance Objectives, 1980-1981-1982, Title I, ESEA Elementary Program. Overall, students are expected to successfully accomplish 85% of the objectives outlined for his or her reading level.

Students are rated during the year by teachers who first checked off each objective the student accomplished, and then added the total achieved. Student ratings reported in the text exceed the actual number of students because students were rated each time they progressed to a new reading level.

## Analysis

The results of achievement tests and performance objectives are reported herein for each applicable grade or reading level; school level (elementary, middle, high school); and school type (public, parochial, and private).

Scores for the Metropolitan Reading Test are also given for each grade in each participating school. Attendance data is also presented for each school level and school type.

In addition, results for the New Century Lab program (at the Dever, McCormack and Lewis Schools) are compared to the results of the regular Title I program. A test of significance was also performed for the results of the Holland Elementary School Pilot Program on the Potentially Gifted, comparing the achievement levels of those students with that of regular Title I program students at the Holland. Results are presented in the following chapters.

## IV. ELEMENTARY PROGRAM

### A. Program Description

Approximately 3,000 elementary students in Districts II, III, and VI are enrolled in Title I reading programs this year. Students who score below the fortieth percentile on the Metropolitan Reading test are eligible for Title I instruction. Upon entering the program students are given the Sucher-Allred test to determine placement in an appropriate reading level.

#### REGULAR TITLE I PROGRAM

For one period a day five days a week, Title I students receive supplemental reading instruction from a Title I teacher who is assisted by a full-time or part-time paraprofessional. Title I classes are purposely small with a maximum of eight students per teacher. Instructional plans are individualized, but students often work together in small groups. Upon arriving in class students are expected to pick up their folders, read their daily lesson plan and begin working on assignments. During the class the teacher both assists students individually and gives individual lessons or small group instruction.

#### NEW CENTURY EDUCATION CORPORATION READING LABS (NCEC)

There are three elementary schools, one of which is in this sample (the Dever School), where Title I services are provided to 155 Title I students through an NCEC lab. This lab provides individualized programmed learning to classes of thirty six students who work at their own pace in cubicles equipped with tape recorders and workbooks. Staffed by two Title I teachers and two paraprofessionals, students meet for a forty-five minute period each day.

B. Summative Evaluation Results

Of the 2,255 elementary school students (Grades 2 to 5) enrolled in the Title I program in the three districts being evaluated, pre and post achievement test scores were available for 1671 students. (It should be noted that first grade students were not pre-tested, therefore, no first grade achievement test scores are analyzed in this report.) Test scores, attendance data, and teachers ratings of attainment of performance objectives are reported for the 1671 students in the following pages.

Table IV-1 summarizes the mean NCE gains on the Metropolitan Achievement Test for each of the elementary school grades.

Table IV-1

Summary of NCE Reading Scores of Elementary School Students on the Metropolitan Achievement Test by Grade

| Grade | Enrolled | N Tested | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|---|
| 1 | (639) | (543) | -- | (49.3) | -- |
| 2 | 448 | 297 | 36.9 | 45.0 | 8.1 |
| 3 | 564 | 394 | 36.3 | 41.4 | 5.1 |
| 4 | 632 | 491 | 33.2 | 39.7 | 6.5 |
| 5 | 611 | 489 | 32.6 | 41.0 | 8.4 |
| Total Grades 2-5 | 2,255 | 1,671* | 34.4 | 41.4 | 7.0 |

* Excluding Grade 1. Including Grade 1, N = 2,214

As Table IV-1 shows, the mean gain ranged from 5.1 in the third grade to 8.4 in the fifth grade, with an overall average gain of 7.0 NCE's. In all elementary school grades the mean NCE gain exceeded the 1 NCE gain specified in the program objective.

We can conclude that:

> For Title I students in each elementary school grade in the districts being evaluated, the average NCE gain on the Metropolitan Achievement Test exceeded the program objective of a 1.0 NCE gain.

Table IV-2 distinguishes between the mean NCE gains of public, parochial and private school students in the elementary school grades.

Table IV-2

Summary of NCE Reading Scores of Elementary School Students on the Metropolitan Achievement Test by School Type and Grade

| | N | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|
| Public Schools | | | | |
| Grade 1 | 398 | -- | 52.2 | -- |
| Grade 2 | 187 | 36.7 | 40.1 | 3.4 |
| Grade 3 | 271 | 35.5 | 41.7 | 6.2 |
| Grade 4 | 374 | 32.7 | 40.8 | 8.1 |
| Grade 5 | 366 | 30.9 | 41.5 | 10.6 |
| Total Public Schools (Excluding Grade 1) | 1,198 | 33.4 | 42.5 | 9.1 |
| Parochial Schools | | | | |
| Grade 1 | 134 | -- | 41.2 | -- |
| Grade 2 | 99 | 37.6 | 38.7 | 1.1 |
| Grade 3 | 116 | 38.0 | 40.6 | 2.6 |
| Grade 4 | 110 | 34.9 | 36.8 | 1.9 |
| Grade 5 | 108 | 38.1 | 40.3 | 2.2 |
| Total Parochial Schools (Excluding Grade 1) | 433 | 37.2 | 39.1 | 1.9 |
| Private Schools | | | | |
| Grade 1 | 11 | -- | 41.8 | -- |
| Grade 2 | 11 | 34.7 | 32.2 | -2.5 |
| Grade 3 | 7 | 37.8 | 40.4 | 2.6 |
| Grade 4 | 7 | 30.3 | 23.6 | -6.7 |
| Grade 5 | 15 | 35.2 | 33.8 | -1.4 |
| Total Private Schools (Excluding Grade 1) | 40 | 34.7 | 32.8 | -1.9 |
| TOTAL ALL SCHOOLS (Excluding Grade 1) | 1,671 | 34.4 | 41.4 | 7.0 |

As Table IV-2 shows, the average gain for 1,198 public elementary school students was 9.1, compared to 1.9 for 433 parochial school students. The 40 private school students for whom pre-test scores were available showed an average loss of 1.9 NCE's, slipping further below the national norm for elementary schoolers. On pre-tests the private school students had average scores between the parochial and public school students but on post-tests they didn't average as high as either of the other two groups. The reason for this disparity is not immediately apparent; nonetheless, the same pattern holds true at all grade levels.

Table IV-3 allows us to see the numbers and proportions of students in each grade level who met the minimum program objective of a 1 NCE gain. This information is also broken down by public, parochial, and private school type.

As Table IV-3 shows, the highest proportion of students attaining the minimum 1 NCE gain specified in objectives were from public schools, and this lead held true overall (72%) and at each grade level. On the other hand, only 54% of the parochial school students and only 43% of the private school students met the objective.

We can conclude that:

> Among elementary school students pre-post tested on the Metropolitan Achievement Test, 72% of the public school students attained at least 1 NCE gain, while only 54% of the parochial school students and 43% of the private school students met the objective. The remainder of the students either held their own or slipped behind their status relative to national norms.

Considering the entire Boston Title I program, including all schools we can conclude that:

> The average gain across all elementary grades and all schools in the Boston Title I program was 7.0 NCE points, well in excess of the goal of 1.0 NCE points.

Table IV-3

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Tests on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N Tested | N of Students Who Raised Their Score 1 NCE Point | Percent of Students Who Raised Their Score 1 NCE Point |
|---|---|---|---|
| PUBLIC SCHOOLS | | | |
| 2 | 187 | 138 | 74% |
| 3 | 271 | 173 | 64% |
| 4 | 374 | 279 | 75% |
| 5 | 366 | 268 | 73% |
| Total | 1,198 | 858 | 72% |
| PAROCHIAL SCHOOLS | | | |
| 2 | 99 | 51 | 52% |
| 3 | 116 | 67 | 58% |
| 4 | 110 | 54 | 49% |
| 5 | 108 | 63 | 58% |
| Total | 433 | 235 | 54% |
| PRIVATE SCHOOLS | | | |
| 2 | 11 | 4 | 36% |
| 3 | 7 | 4 | 57% |
| 4 | 7 | 3 | 43% |
| 5 | 15 | 6 | 40% |
| Total | 40 | 17 | 43% |
| Total Elementary School Population | 1,671 | 1,110 | 66% |

Does school attendance relate to NCE gains at the elementary school level? Table IV-4 shows that the high scoring public school group had a greater average attendance record overall and at each grade level than either the parochial or private school groups. The parochial students also averaged better attendance records than the private school students who showed the least average improvement from the Title I program.

Table IV-4

Mean Attendance by Grade and School Type -
Elementary Students

| | N | MEAN ATTENDANCE |
|---|---|---|
| Public Schools | | |
| Grade 1 | 398 | 103.9 |
| Grade 2 | 187 | 118.0 |
| Grade 3 | 271 | 116.1 |
| Grade 4 | 374 | 115.5 |
| Grade 5 | 366 | 114.2 |
| Total Public Schools | 1,596 | 112.7 |
| Parochial Schools | | |
| Grade 1 | 134 | 97.0 |
| Grade 2 | 99 | 107.4 |
| Grade 3 | 116 | 108.7 |
| Grade 4 | 110 | 105.1 |
| Grade 5 | 108 | 107.5 |
| Total Parochial Schools | 567 | 104.8 |
| Private Schools | | |
| Grade 1 | 11 | 83.7 |
| Grade 2 | 11 | 98.7 |
| Grade 3 | 7 | 103.3 |
| Grade 4 | 7 | 74.1 |
| Grade 5 | 15 | 100.2 |
| Total Private Schools | 51 | 93.1 |
| TOTAL ALL SCHOOLS | 2,214 | 110.2 |

**We can conclude that:**

> **On the average, there does appear to be a relationship between attendance and NCE gains at the elementary school level.**

Table IV-5 compares the average NCE gain on the Metropolitan Achievement Test for Title I students at each of the 36 elementary schools in the three districts being evaluated. The table shows great variations within both the public and parochial school categories. The average public school NCE gains,

Table IV-5
Summary of NCE Reading Scores of Elementary School Students
on the Metropolitan Achievement Test by School

| PUBLIC SCHOOLS | N in Program | N Tested | % Tested | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|---|---|
| Agassiz | 138 | 110 | 80% | 33.8 | 39.3 | 5.5 |
| Bates | 36 | 36 | 100% | 30.9 | 41.8 | 10.9 |
| Beethoven | 41 | 35 | 85% | 33.2 | 39.2 | 6.0 |
| Clap | 58 | 38 | 66% | 37.4 | 46.2 | 8.8 |
| Condon | 186 | 92 | 49% | 29.8 | 38.0 | 8.2 |
| Dever (NCEC) | 142 | 59 | 42% | 31.8 | 48.7 | 16.9 |
| David A. Ellis | 58 | 41 | 71% | 33.5 | 36.1 | 2.6 |
| Emerson | 45 | 39 | 87% | 36.7 | 52.3 | 15.6 |
| Margaret Fuller | 69 | 50 | 72% | 36.6 | 42.2 | 5.6 |
| Henry Higginson | 36 | 28 | 78% | 32.7 | 49.4 | 16.7 |
| John F. Kennedy | 75 | 65 | 87% | 32.5 | 37.9 | 5.4 |
| Lee | 82 | 61 | 74% | 34.7 | 38.9 | 4.2 |
| Longfellow | 51 | 40 | 78% | 30.5 | 39.9 | 9.4 |
| Manning | 31 | 26 | 84% | 36.8 | 43.2 | 6.4 |
| Samuel Mason | 57 | 37 | 65% | 38.6 | 51.8 | 13.2 |
| Mattahunt | 131 | 92 | 67% | 31.4 | 39.9 | 8.5 |
| Mendell | 63 | 42 | 67% | 31.8 | 50.9 | 19.1 |
| Mozart | 34 | 25 | 74% | 36.3 | 40.5 | 4.2 |
| Parkman | 65 | 41 | 63% | 37.2 | 48.0 | 10.8 |
| Perkins | 35 | 29 | 83% | 39.3 | 38.7 | -0.6 |
| Philbrick | 34 | 31 | 91% | 32.3 | 34.8 | 2.5 |
| Russell | 66 | 22 | 33% | 31.1 | 40.7 | 9.6 |
| Sumner | 84 | 66 | 79% | 30.0 | 45.2 | 15.2 |
| Tynan | 76 | 71 | 93% | 32.7 | 46.5 | 13.8 |
| Winthrop | 29 | 22 | 76% | 38.4 | 44.9 | 6.5 |
| Total Public | 1,1722 | 1,198 | 70% | 33.4 | 42.5 | 9.1 |

| PAROCHIAL SCHOOLS | N in Program | N Tested | % Tested | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|---|---|
| Blessed Sacrament | 63 | 40 | 63% | 26.5 | 30.4 | 3.9 |
| Gate of Heaven | 64 | 54 | 84% | 44.3 | 48.7 | 4.4 |
| Our Lady of Lourdes | 38 | 38 | 100% | 40.4 | 44.3 | 3.9 |
| St. Angela | 34 | 34 | 100% | 30.4 | 28.6 | -1.8 |
| St. Augustine | 32 | 29 | 91% | 40.6 | 44.0 | 3.4 |
| St. Brigid | 27 | 27 | 100% | 34.6 | 33.7 | -0.9 |
| St. Kevin | 81 | 79 | 98% | 37.6 | 40.4 | 2.8 |
| St. Margaret | 58 | 53 | 91% | 34.4 | 39.7 | 5.3 |
| St. Mary | 31 | 28 | 87% | 38.6 | 40.9 | 2.3 |
| St. Patrick | 56 | 51 | 91% | 41.0 | 35.7 | -5.3 |
| Total Parochial | 484 | 433 | 89% | 37.2 | 39.1 | 1.9 |

| PRIVATE SCHOOLS | N in Program | N Tested | % Tested | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|---|---|
| Berea | 30 | 25 | 83% | 33.9 | 32.7 | -1.2 |
| Roxbury Community | 19 | 15 | 79% | 35.9 | 32.9 | -3.0 |
| Total Private | 49 | 40 | 82% | 34.7 | 32.8 | -1.9 |

for instance, ranged from a 0.6 drop at the Perkins School (which started off with the highest average public school pre-test score) to a 19.1 average gain at the Mendel School (which started with a pretest average that was 1.6 NCE's below the mean for Public Elementary Schools.)

The parochial school average NCE gains fell within a narrower range, from a 5.3 drop at the St. Patrick School to a 5.3 gain at St. Margaret's. (It should be noted that there was an average drop at three out of the ten parochial schools, while there was only one average NCE drop among 25 public elementary schools.)

Both of the private schools showed NCE losses in their Title I programs, overall we can conclude that:

> **The public elementary schools showed a wider range of NCE gains than either the parochial or private schools. Only 1 of 24 public schools showed an average NCE loss, while 3 out of 10 parochial schools, and both private schools showed average losses from pre-to-post test.**

The Dever School, which was the only one of the evaluated elementary schools to have a New Century Education Corporation Reading Lab (NCEC), showed the second highest NCE gain (16.9) among these schools. However, the Dever also had the second lowest percent of students who were pre and post tested.

We can conclude that:

> **The NCEC program at the Dever School has been highly successful, in terms of achieving the second highest NCE gain (16.9) among all elementary schools evaluated.**

Table IV-6 compares the New Century Lab program to the regular Title I small group at each grade level. It can easily be seen that gains in the New Century Lab program exceed those of the regular program at every grade level.

We can therefore conclude that:

> **The NCEC program at the Dever School is highly successful in terms of having average gains that exceed the regular Title I program average gains at every elementary grade level.**

Table IV-6

A Comparison of NCE Scores Between Elementary Public School Students Having Small Group Instruction and Those Having NCEC Instruction on the Metropolitan Achievement Test

| Small Group Instruction | | | | |
|---|---|---|---|---|
| Grade | N | Pre NCE | Post NCE | Gain |
| 2 | 183 | 36.9 | 49.0 | 12.1 |
| 3 | 261 | 35.3 | 41.1 | 5.8 |
| 4 | 355 | 32.8 | 40.6 | 7.8 |
| 5 | 339 | 31.0 | 41.2 | 10.2 |
| Total | 1,13[illegible] | 33.5 | 42.2 | 8.7 |
| NCEC Instruction (Dever School) | | | | |
| Grade | N | Pre NCE | Post NCE | Gain |
| 2 | [illegible] | 26.5 | 52.3 | 25.8 |
| 3 | 1[illegible] | 40.7 | 58.6 | 17.9 |
| 4 | 1[illegible] | 30.6 | 44.5 | 13.9 |
| 5 | 26 | 30.0 | 47.4 | 17.4 |
| Total | 59 | 31.8 | 48.7 | 16.9 |

Table IV-7 shows the average attendance record for each of the elementary schools. Average attendance ranged from 71.5 days at the Lee School to 152 days at the Parkman school. There is not a consistently direct relationship between attendance and pre to post test gain.

Table IV-7

Mean Elementary School Attendance by School - Grades 1-5

| PUBLIC SCHOOLS | N | MEAN ATTENDANCE |
|---|---|---|
| Agassiz | 149 | 119.3 |
| Bates | 48 | 116.2 |
| Beethovan | 43 | 104.6 |
| Clap | 49 | 121.7 |
| Condon | 124 | 102.6 |
| Dever (NCEC) | 71 | 102.1 |
| David A. Ellis | 55 | 103.3 |
| Emerson | 69 | 131.3 |
| Margaret Fuller | 64 | 98.7 |
| Henry Higginson | 37 | 116.4 |
| John F. Kennedy | 86 | 117.1 |
| Lee | 73 | 71.5 |
| Longfellow | 59 | 99.2 |
| Manning | 34 | 111.5 |
| Samuel Mason | 59 | 136.1 |
| Mattahunt | 121 | 103.6 |
| Mendell | 58 | 120.7 |
| Mozart | 34 | 103.5 |
| Parkman | 52 | 152.0 |
| Perkins | 33 | 128.1 |
| Philbrick | 39 | 105.0 |
| Russell | 33 | 141.3 |
| Sumner | 89 | 113.1 |
| Tynan | 89 | 117.0 |
| Winthrop | 28 | 120.3 |
| Total Public Schools | 1,667 | 112.2 |
| **PAROCHIAL SCHOOLS** | **N** | **MEAN ATTENDANCE** |
| Blessed Sacrament | 54 | 96.2 |
| Gate of Heaven | 71 | 109.4 |
| Our Lady of Lourdes | 46 | 92.8 |
| St. Angela | 42 | 102.8 |
| St. Augustine | 45 | 123.7 |
| St. Brigid | 31 | 95.5 |
| St. Kevin | 108 | 101.3 |
| St. Margaret | 62 | 123.8 |
| St. Mary | 34 | 109.8 |
| St. Patrick | 74 | 94.4 |
| Total Parochial Schools | 567 | 104.8 |
| **PRIVATE SCHOOLS** | **N** | **MEAN ATTENDANCE** |
| Berea | 34 | 84.4 |
| Roxbury Community | 17 | 110.5 |
| Total Private Schools | 51 | 93.1 |

Table IV-8 (which is eight pages long) shows the number and percents of students in each grade, at each school who attained the minimum NCE gain specified in the Title I program objectives. Though this table is quite lengthy, it does yield some very specific information. The interested reader, for instance, can determine that the Samuel Mason School had the highest proportion of students achieving the program objective (92% overall). On the other hand, only 20% of the Title I students at the Roxbury Community School attained the objective, but this school also had the smallest Title I program.

We can therefore conclude that:

**The proportion of students attaining the minimum Title I objective of 1 NCE gain varied from school to school, with the greatest range of variation among the public schools.**

Table IV-8

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point or More | Percent of Students Who Raised Their Score 1 NCE Point or More |
|---|---|---|---|
| PUBLIC SCHOOLS | | | |
| Agassiz | | | |
| 2 | 29 | 22 | 76% |
| 3 | 29 | 15 | 52% |
| 4 | 29 | 20 | 69% |
| 5 | 23 | 15 | 65% |
| Total | 110 | 72 | 65% |
| Bates | | | |
| 2 | 4 | 1 | 25% |
| 3 | 8 | 7 | 88% |
| 4 | 12 | 12 | 100% |
| 5 | 12 | 10 | 83% |
| Total | 36 | 30 | 83% |
| Beethovan | | | |
| 2 | 2 | 1 | 50% |
| 3 | 14 | 5 | 36% |
| 4 | 7 | 3 | 43% |
| 5 | 12 | 12 | 100% |
| Total | 35 | 21 | 60% |
| Clap | | | |
| 2 | 8 | 7 | 88% |
| 3 | 10 | 8 | 80% |
| 4 | 6 | 4 | 67% |
| 5 | 14 | 9 | 64% |
| Total | 92 | 66 | 72% |
| Condon | | | |
| 2 | 10 | 7 | 70% |
| 3 | 10 | 8 | 80% |
| 4 | 35 | 23 | 66% |
| 5 | 37 | 28 | 76% |
| Total | 92 | 66 | 72% |

Table IV-8 (Cont.)

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point or More | Percent of Students Who Raised Their Score 1 NCE Point or More |
|---|---|---|---|
| PUBLIC SCHOOLS (Cont.) | | | |
| Dever (NCEC) | | | |
| 2 | 4 | 4 | 100% |
| 3 | 10 | 9 | 90% |
| 4 | 19 | 17 | 89% |
| 5 | 26 | 19 | 73% |
| Total | 59 | 49 | 83% |
| David A. Ellis | | | |
| 2 | 9 | 5 | 56% |
| 3 | 12 | 7 | 58% |
| 4 | 8 | 7 | 88% |
| 5 | 12 | 3 | 25% |
| Total | 41 | 22 | 54% |
| Emerson | | | |
| 2 | 9 | 9 | 100% |
| 3 | 11 | 9 | 82% |
| 4 | 14 | 9 | 64% |
| 5 | 5 | 5 | 100% |
| Total | 39 | 32 | 82% |
| Margaret Fuller | | | |
| 2 | 5 | 3 | 60% |
| 3 | 13 | 7 | 54% |
| 4 | 17 | 10 | 59% |
| 5 | 15 | 11 | 73% |
| Total | 50 | 31 | 62% |
| Henry Higginson | | | |
| 2 | 5 | 5 | 100% |
| 3 | 6 | 1 | 17% |
| 4 | 8 | 8 | 100% |
| 5 | 9 | 9 | 100% |
| Total | 28 | 23 | 82% |

Table IV-8 (Cont.)

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point or More | Percent of Students Who Raised Their Score 1 NCE Point or More |
|---|---|---|---|
| PUBLIC SCHOOLS (Cont.) | | | |
| John F. Kennedy | | | |
| 2 | 7 | 4 | 57% |
| 3 | 12 | 4 | 33% |
| 4 | 22 | 19 | 86% |
| 5 | 24 | 13 | 54% |
| Total | 61 | 35 | 57% |
| Lee | | | |
| 2 | 11 | 6 | 55% |
| 3 | 9 | 5 | 56% |
| 4 | 14 | 10 | 71% |
| 5 | 27 | 14 | 52% |
| Total | 61 | 35 | 57% |
| Longfellow | | | |
| 2 | 5 | 3 | 60% |
| 3 | 16 | 13 | 81% |
| 4 | 7 | 4 | 57% |
| 5 | 12 | 11 | 92% |
| Total | 40 | 31 | 78% |
| Manning | | | |
| 2 | 7 | 7 | 100% |
| 3 | 7 | 3 | 43% |
| 4 | 5 | 2 | 40% |
| 5 | 7 | 3 | 43% |
| Total | 26 | 15 | 58% |
| Samuel Mason | | | |
| 2 | 6 | 6 | 100% |
| 3 | 14 | 11 | 79% |
| 4 | 8 | 8 | 100% |
| 5 | 9 | 9 | 100% |
| Total | 37 | 34 | 92% |

Table IV-8 (Cont.)

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point or More | Percent of Students Who Raised Their Score 1 NCE Point or More |
|---|---|---|---|
| PUBLIC SCHOOLS (Cont.) | | | |
| Mattahunt | | | |
| 2 | 7 | 4 | 57% |
| 3 | 20 | 12 | 60% |
| 4 | 34 | 26 | 76% |
| 5 | 31 | 22 | 71% |
| Total | 92 | 64 | 70% |
| Mendell | | | |
| 2 | 14 | 14 | 100% |
| 3 | 4 | 4 | 100% |
| 4 | 12 | 3 | 35% |
| 5 | 12 | 12 | 100% |
| Total | 42 | 33 | 79% |
| Mozart | | | |
| 2 | 8 | 6 | 75% |
| 3 | 5 | 2 | 40% |
| 4 | 9 | 6 | 67% |
| 5 | 3 | 3 | 100% |
| Total | 25 | 17 | 68% |
| Parkman | | | |
| 2 | 4 | 4 | 100% |
| 3 | 7 | 6 | 86% |
| 4 | 19 | 13 | 68% |
| 5 | 11 | 10 | 91% |
| Total | 41 | 33 | 80% |
| Perkins | | | |
| 2 | 5 | 3 | 60% |
| 3 | 6 | 4 | 67% |
| 4 | 8 | 6 | 75% |
| 5 | 10 | 0 | 0% |
| Total | 29 | 13 | 45% |

Table IV-8 (Cont.)

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point or More | Percent of Students Who Raised Their Score 1 NCE Point or More |
|---|---|---|---|
| PUBLIC SCHOOLS (Cont.) | | | |
| Philbrick | | | |
| 2 | 3 | 1 | 33% |
| 3 | 14 | 5 | 36% |
| 4 | 10 | 7 | 70% |
| 5 | 4 | 4 | 100% |
| Total | 31 | 17 | 55% |
| Russell | | | |
| 2 | 1 | 1 | 100% |
| 3 | 2 | 2 | 100% |
| 4 | 10 | 9 | 100% |
| 5 | 9 | 7 | 78% |
| Total | 22 | 19 | 86% |
| Sumner | | | |
| 2 | 10 | 9 | 90% |
| 3 | 13 | 11 | 85% |
| 4 | 28 | 21 | 75% |
| 5 | 15 | 12 | 80% |
| Total | 66 | 53 | 80% |
| Tynan | | | |
| 2 | 11 | 5 | 45% |
| 3 | 12 | 11 | 92% |
| 4 | 25 | 25 | 100% |
| 5 | 23 | 23 | 100% |
| Total | 71 | 64 | 90% |
| Winthrop | | | |
| 2 | 3 | 1 | 33% |
| 3 | 7 | 4 | 57% |
| 4 | 8 | 7 | 88% |
| 5 | 4 | 4 | 100% |
| Total | 22 | 16 | 73% |

Table IV-8 (Cont.)

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point or More | Percent of Students Who Raised Their Score 1 NCE Point or More |
|---|---|---|---|
| PAROCHIAL SCHOOLS | | | |
| Blessed Sacrament | | | |
| 2 | 12 | 5 | 41% |
| 3 | 6 | 4 | 67% |
| 4 | 12 | 7 | 58% |
| 5 | 10 | 10 | 100% |
| Total | 40 | 26 | 65% |
| Gate of Heaven | | | |
| 2 | 7 | 3 | 43% |
| 3 | 26 | 17 | 65% |
| 4 | 14 | 8 | 57% |
| 5 | 7 | 5 | 71% |
| Total | 54 | 33 | 61% |
| Our Lady of Lourdes | | | |
| 2 | 8 | 4 | 50% |
| 3 | 10 | 5 | 50% |
| 4 | 8 | 2 | 25% |
| 5 | 12 | 11 | 92% |
| Total | 38 | 22 | 58% |
| St. Angela | | | |
| 2 | 9 | 4 | 44% |
| 3 | 9 | 6 | 67% |
| 4 | 10 | 1 | 10% |
| 5 | 6 | 3 | 50% |
| Total | 34 | 14 | 41% |
| St. Augustine | | | |
| 2 | 7 | 4 | 57% |
| 3 | 7 | 3 | 43% |
| 4 | 8 | 7 | 88% |
| 5 | 7 | 5 | 71% |
| Total | 29 | 19 | 66% |

Table IV-8 (Cont.)

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point or More | Percent of Students Who Raised Their Score 1 NCE Point or More |
|---|---|---|---|
| PAROCHIAL SCHOOLS (Cont.) | | | |
| St. Brigid | | | |
| 2 | 2 | 0 | 0% |
| 3 | 6 | 3 | 30% |
| 4 | 12 | 6 | 50% |
| 5 | 7 | 1 | 14% |
| Total | 27 | 10 | 37% |
| St. Kevin | | | |
| 2 | 21 | 16 | 76% |
| 3 | 16 | 7 | 44% |
| 4 | 18 | 10 | 55% |
| 5 | 24 | 14 | 58% |
| Total | 79 | 47 | 59% |
| St. Margaret | | | |
| 2 | 9 | 5 | 56% |
| 3 | 15 | 10 | 67% |
| 4 | 15 | 9 | 60% |
| 5 | 14 | 8 | 57% |
| Total | 53 | 32 | 60% |
| St. Mary | | | |
| 2 | 10 | 6 | 60% |
| 3 | 6 | 4 | 67% |
| 4 | 7 | 3 | 43% |
| 5 | 5 | 3 | 60% |
| Total | 28 | 16 | 57% |
| St. Patrick | | | |
| 2 | 14 | 4 | 29% |
| 3 | 15 | 8 | 53% |
| 4 | 6 | 1 | 17% |
| 5 | 16 | 3 | 19% |
| Total | 51 | 16 | 31% |

Table IV-8 (Cont.)

Number and Percent of Elementary School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point or More | Percent of Students Who Raised Their Score 1 NCE Point or More |
|---|---|---|---|
| PRIVATE SCHOOLS | | | |
| Berea | | | |
| 2 | 7 | 3 | 43% |
| 3 | 3 | 3 | 100% |
| 4 | 7 | 3 | 43% |
| 5 | 8 | 5 | 63% |
| Total | 25 | 14 | 56% |
| Roxbury Community | | | |
| 2 | 4 | 1 | 25% |
| 3 | 4 | 1 | 25% |
| 4 | -- | -- | -- |
| 5 | 7 | 1 | 14% |
| Total | 15 | 3 | 20% |

C. Results of the Achievement of Performance Objectives

During the year, elementary students were rated on their achievement of performance objectives. These objectives are fully described in the document entitled Reading Performance Objectives, 1980-1981-1982. According to this document, the reading performance objectives are the foundation of the instructional program. The overall program objective is:

> Given approximately 45 minutes of instruction 5 days per week for the school year with no more than 11% absenteeism.
>
> - Title I students will successfully accomplish 85% of the objectives outlined for her/his instruction level.

For elementary students the number of performance objectives ranged from twenty-two to thirty-six, depending on the reading level. Table IV-9 reports the reading levels and corresponding number of objectives. These reading levels do not necessarily correspond with a child's actual grade. For example, a fourth grade child may be reading at a second grade level.

Table IV-9

Reading Performance Objectives

| LEVEL | Number of Objectives |
|---|---|
| Reading Readiness | 36 |
| Pre-Primer | 22 |
| Primer | 27 |
| Grade 1 | 31 |
| Grade 2* | 30 |
| Grade 3* | 31 |
| Grade 4 | 36 |
| Grade 5 | 35 |

* Although teachers were expected to distinguish between $2^1$ and $2^2$ at the second grade level and $3^1$ and $3^2$ at the third grade level, the majority of teachers did not do so. We have therefore not made the distinction in our report.

The data reported was obtained from Performance Objective Summary Sheets filled out by the Title I teachers during the year. On these sheets the teachers put a check mark next to each objective achieved by each student.

It should be noted that: 1) the number of schools varies at each reading level because some schools have no Title I students at a particular reading level; 2) Teachers did not distinguish between $2^1$ and $2^2$ at the second grade level and $3^1$ and $3^2$ at the third grade level. We have therefore not made this distinction in our report.

The following tables report the number of students who during the year were able to achieve 85% or more of the performance objectives. As many students advanced from one reading level to the next, several students are reported more than once.

Table IV-10 presents the number and percent of students meeting 85% or more of the objectives at each reading level, Public, Parochial and Private Schools (excluding students in the New Century Lab program who were rated on different performance objective. None of the NCEC students achieved 85% of their objectives. Thirteen students achieved an average of 28% on fourteen Codebuster objectives. One hundred and nine students achieved a average of 26% on fifty four Century 21 objectives. Seventy six students achieved an average of 44% on fifteen Read Achiever objectives.

As Table IV-10 shows, a greater proportion of parochial school students (68%) met the expected number of performance objectives than did either public or private school students. The parochial school students, on the average, held their lead over the public school students at every reading level. Comparisons with the private school grades are less consistent, and perhaps less reliable because there are relatively few scores for the private schools.

Table IV-10

Achievement of Performance Objectives
Elementary Students*

| Reading Level | N of Schools | N of Objectives | N Rated | N of Students Achieving ≥85% | Proportion Achieving ≥85% |
|---|---|---|---|---|---|
| Public Schools | | | | | |
| Readiness | 20 | 36 | 299 | 219 | 73% |
| Pre-Primer | 22 | 22 | 399 | 244 | 61% |
| Primer | 21 | 27 | 275 | 158 | 57% |
| 1 | 23 | 31 | 400 | 221 | 55% |
| 2 | 23 | 30 | 749 | 445 | 59% |
| 3 | 23 | 31 | 563 | 326 | 58% |
| 4 | 20 | 36 | 188 | 98 | 52% |
| 5 | 3 | 35 | 14 | 4 | 44% |
| Total Public | 24 | | 2,887 | 1,715 | 59% |
| Parochial Schools | | | | | |
| Readiness | 9 | 36 | 83 | 65 | 78% |
| Pre-Primer | 8 | 22 | 134 | 93 | 69% |
| Primer | 9 | 27 | 142 | 105 | 74% |
| 1 | 9 | 31 | 130 | 81 | 62% |
| 2 | 10 | 30 | 310 | 191 | 62% |
| 3 | 10 | 31 | 239 | 158 | 66% |
| 4 | 9 | 36 | 104 | 81 | 78% |
| 5 | 4 | 35 | 27 | 26 | 96% |
| Total Parochial | 24 | | 1,169 | 800 | 68% |
| Private Schools | | | | | |
| Readiness | 20 | 36 | 9 | 9 | 100% |
| Pre-Primer | 22 | 22 | 8 | 1 | 13% |
| Primer | 21 | 27 | 18 | 7 | 39% |
| 1 | 23 | 31 | 15 | 10 | 67% |
| 2 | 23 | 30 | 24 | 17 | 71% |
| 3 | 23 | 31 | 10 | 9 | 90% |
| 4 | 20 | 36 | 12 | 8 | 67% |
| 5 | 3 | 35 | 11 | 5 | 45% |
| Total Private | 24 | | 107 | 66 | 62% |
| Grand Total | 36 | | 4,163 | 2,581 | 62% |

* Excludes results for the New Century Lab program.

We can conclude that:

On the average a greater percentage of parochial students achieved the expected reading performance objectives (68%) than did public (59%) or private (62%) school students.

V. MIDDLE SCHOOL READING/LANGUAGE ARTS PROGRAM

A. Program Description

In districts II, III and VI approximately 1,173 students in grades six through eight (public and private) were enrolled in the Middle School Title I program. Criteria for student selection was based on results of the Metropolitan Achievement Test administered in 1981. Students scoring less than the fortieth percentile were eligible for Title I services. Because Title I does not have the resources to service all eligible children those in greatest need are selected first. A list of qualifying students in rank order, from lowest to highest, is then maintained at each school so that new children may be added to the program as others move away.

The focus of this program is to improve reading and language art skills in a highly individualized setting. Materials and techniques are geared to the instructional level of students involved.

As Title I regulations state that students cannot miss more than one class of each major subject per week, the student's schedule is rotated daily. Class size at the middle school level is a maximum of nine pupils.

During the year students are expected to raise their reading scores and achieve a certain number of reading objectives. The overall measure of success is stated in the objectives below:

> Given a forty-five minute instructional period in reading, four days a week for thirty-five weeks, the Title I students will:
>
> - o show an increase of one normal curve equivalent score, as measured (from pre to past test) by the appropriate levels of the Metropolitan Achievement Reading Survey Test.
> - o show an increase of one normal curve equivalent score as measured (from pre to post test) by the appropriate level of the California Achievement Test, 1977-1978 Edition.

B. Summative Evaluation Results

1. Reading

Of the 1,173 middle school students enrolled in the Title I program in the three districts being evaluated, pre and post achievement test scores were available for 872 students. The test scores, attendance data, and teachers ratings of attainment of performance objectives are reported for the 872 students on the following pages.

Table V-1 summarizes the mean NCE gains on the Metropolitan Achievement Test for each of the middle school grades.

Table V-1

Summary of NCE Reading Scores of Middle School Students on the Metropolitan Achievement Test by Grade

| GRADE | N | PRE NCE | POST NCE | GAIN |
|---|---|---|---|---|
| 6 | 403 | 29.4 | 39.5 | 10.1 |
| 7 | 233 | 26.6 | 36.6 | 10.0 |
| 8 | 236 | 27.0 | 34.6 | 7.6 |
| TOTAL | 872 | 27.9 | 37.4 | 9.5 |

As Table V-1 shows, the mean gain ranged from 10.1 in the sixth grade to 7.6 in the eighth grade, with an overall average gain of 9.5 NCE's. In all middle school grades the mean NCE gain significantly exceeded the 1 NCE gain specified in the program objective.

We can conclude that:

> For Title I students in each middle school grade in the districts being evaluated, the average NCE gain on the Metropolitan Achievement Test significantly exceeded the program objective of a 1.0 NCE gain.

Table V-2 distinguishes between the mean NCE gains of public, parochial and private school students in the middle school grades.

Table V-2

Summary of NCE Reading Scores of Middle School Students
on the Metropolitan Achievement Test
by School Type and Grade

| Grade | N | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|
| Public Schools | | | | |
| 6 | 239 | 25.8 | 37.4 | 11.6 |
| 7 | 174 | 22.2 | 34.2 | 12.0 |
| 8 | 181 | 22.7 | 32.8 | 10.1 |
| Total | 594 | 23.8 | 35.1 | 11.3 |
| Parochial Schools | | | | |
| 6 | 157 | 34.8 | 42.9 | 8.1 |
| 7 | 59 | 39.4 | 43.7 | 4.3 |
| 8 | 55 | 40.9 | 40.6 | -0.3 |
| Total | 271 | 37.0 | 42.6 | 5.6 |
| Private School | | | | |
| 6 | 7 | 34.9 | 31.4 | -3.5 |
| TOTAL ALL SCHOOLS | 872 | 27.9 | 37.4 | 9.5 |

As Table V-2 shows, the average gain for 594 public elementary school students was 11.3, compared to 5.6 for 271 parochial school students. The seven private school students for whom pre-test scores were available showed an average loss of 3.5 NCE's, slipping further below the national norm for middle school students. On pre-tests the private school students had average NCE scores higher than the public school students. However, their average post-test score was lower than all the averages for the public and parochial school grades. The reason for this disparity is not immediately apparent.

Table V-3 allows us to see the numbers and proportions of students in each grade level who met the minimum program objective of a 1 NCE gain. This information is also broken down by public, parochial, and private school type.

Table V-3
Number and Percent of Middle School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point | Percent of Students Who Raised Their Score 1 NCE Point |
|---|---|---|---|
| PUBLIC SCHOOLS | | | |
| 6 | 239 | 200 | 84% |
| 7 | 174 | 127 | 73% |
| 8 | 181 | 129 | 71% |
| Total | 594 | 456 | 77% |
| PAROCHIAL SCHOOLS | | | |
| 6 | 157 | 126 | 80% |
| 7 | 59 | 37 | 63% |
| 8 | 55 | 30 | 55% |
| Total | 271 | 193 | 71% |
| PRIVATE SCHOOLS | | | |
| 6 | 7 | 3 | 43% |

As Table V-3 shows, the highest proportion of students attaining the minimum 1 NCE gain specified in objectives were from public schools, and this lead held true overall (77%) and at each grade level. Although, 71% of the parochial school students met the objective, only 43% of the seven private school students did.

A comparison with Table V-2 shows in effect, what proportion of students are contributing to average NCE gains at each level. It should be noted that 80% of the sixth grade parochial students met the program objective of 1 NCE, although the average gain for this class (8.1 NCE's) was lower than the average gain for any of the public school classes (10.1 to 12.0).

We can conclude that:

> Among middle school students pre-post tested on the Metropolitan Achievement Test, 77% of the public school students attained at least 1 NCE gain, while only 71% of the parochial school students and only 43% of the private school students met the objective. The remainder of the students either held their own or slipped in their status relative to national norms.

Does school attendance relate to NCE gains at the middle school level? Table V-4 shows that the parochial school group had a greater average attendance record overall and at each grade level, than the public school group which had higher average NCE gains. The poorest average attendance record was among the private school students who also showed the least average improvement in the Title I program.

Table V-4

Mean Middle School Attendance by School Type and Grade

| | N | MEAN ATTENDANCE |
|---|---|---|
| Public Schools | | |
| Grade 6 | 239 | 91.8 |
| Grade 7 | 174 | 96.0 |
| Grade 8 | 181 | 98.2 |
| Total Public Schools | 594 | 95.0 |
| Parochial Schools | | |
| Grade 6 | 157 | 110.4 |
| Grade 7 | 59 | 112.5 |
| Grade 8 | 55 | 108.1 |
| Total Parochial Schools | 271 | 110.4 |
| Private School | | |
| Grade 6 | 7 | 89.1 |

We can conclude that:

**There seems to be little correlation between attendance and NCE gains.**

Table V-5 compares the average NCE gain on the Metropolitan Achievement Test for Title I students at each of the 20 middle schools in the three districts being evaluated. The table shows the variations within both the public and parochial school categories. The average public school NCE gains,

Table V-5

Summary of NCE Reading Scores of Middle School Students on the Metropolitan Achievement Test by School

| | N Enrolled | N Tested | % Tested | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|---|---|
| Public Schools | | | | | | |
| Mary Curley | 184 | 95 | 52% | 18.4 | 34.4 | 16.0 |
| Dearborn | 90 | 67 | 74% | 29.4 | 38.1 | 8.7 |
| Gavin | 135 | 95 | 70% | 25.8 | 32.7 | 6.9 |
| Irving | 90 | 57 | 63% | 23.3 | 34.5 | 11.2 |
| Theodore Roosevelt | 90 | 42 | 47% | 20.4 | 32.9 | 12.5 |
| McCormack | 230 | 147 | 64% | 26.7 | 38.6 | 11.9 |
| Lewis | 131 | 91 | 69% | 20.4 | 31.8 | 11.4 |
| Total | 950 | 594 | 63% | 23.8 | 35.1 | 11.3 |
| Parochial Schools | | | | | | |
| Gate of Heaven | 44 | 38 | 86% | 40.8 | 34.8 | -6.0 |
| Holy Name | 35 | 31 | 89% | 35.9 | 47.2 | 11.3 |
| Our Lady of Lourdes | 43 | 39 | 91% | 36.6 | 41.5 | 4.9 |
| St. Augustine | 31 | 32 | 103% | 44.4 | 44.7 | 0.3 |
| St. Brigid | 30 | 28 | 93% | 39.8 | 46.0 | 6.2 |
| St. Theresa | 40 | 27 | 67% | 32.3 | 45.5 | 13.2 |
| Blessed Sacrament* | 17 | 14 | 82% | 33.0 | 39.1 | 6.1 |
| St. Angela* | 6 | 4 | 67% | 30.0 | 29.1 | -0.9 |
| St. Kevin* | 24 | 24 | 100% | 34.2 | 45.9 | 11.7 |
| St. Margaret* | 16 | 13 | 81% | 31.8 | 42.5 | 10.7 |
| St. Mary* | 6 | 5 | 83% | 36.9 | 46.0 | 9.1 |
| St. Patrick* | 17 | 16 | 94% | 33.9 | 40.6 | 6.7 |
| Total | 309 | 271 | 88% | 37.0 | 42.6 | 5.6 |
| Private School | | | | | | |
| Berea* | 9 | 7 | 78% | 34.8 | 31.4 | -3.4 |

* Grade 6 only Schools administered by Chapter I elementary administrators.

for instance, 6.9 at the Gavin School to a 16.0 average gain at the Mary Curley School (which started of with the lowest pre-test scores of any Middle School). This table also presents the percent of enrolled students pre-post tested. The two public schools with the largest gains, Curley and Roosevelt also had the lowest percent of enrolled students pre-post tested.

The parochial school average NCE gains fell across a wider range, from a 6.0 drop at the Gate of Heaven School to a 13.2 gain at St. Theresa's. (It should be noted that there was an average drop at two out of the twelve parochial schools, while there were no average NCE drops among the 7 public middle schools.) Again the school with the greatest gains, St. Theresa, had the lowest percent of students tested. Caution should be used in interpreting these gain scores since there may be a pattern of schools not post testing low achieving students, thus inflating the gain scores.

The sixth grade at Berea, a private elementary school showed the greatest NCE drop of any of the schools in Table V-5. On the other hand, some of the greatest NCE gains occurred among those public schools which had the lowest average pre-test scores.

Overall we can conclude that:

> There was a great variation in pre to post test change among the 20 middle schools, ranging from a 3.4 drop to a 16.0 gain. Some of the greatest gains occured among schools with the lowest average pre-test scores.

Table V-6 shows the average attendance record of each of the middle schools.

A school by school comparison shows that there is not a consistently direct relationship between attendance and NCE gain or loss at the middle school level.

Table V-6
Mean Attendance by School -
Middle School Students

| | N | MEAN ATTENDANCE |
|---|---|---|
| Public Schools | | |
| Mary Curley | 95 | 88.3 |
| Dearborn | 67 | 97.4 |
| Gavin | 95 | 111.1 |
| Irving | 57 | 68.4 |
| Theodore Roosevelt | 42 | 71.4 |
| McCormack | 147 | 85.9 |
| Lewis | 91 | 125.6 |
| Total Public Schools | 594 | 95.0 |
| Parochial Schools | | |
| Gate of Heaven | 38 | 145.5 |
| Holy Name | 31 | 107.0 |
| Our Lady of Lourdes | 39 | 104.9 |
| St. Augustine | 32 | 80.0 |
| St. Brigid | 28 | 100.9 |
| St. Theresa | 27 | 124.0 |
| Blessed Sacrament* | 14 | 103.1 |
| St. Angela* | 4 | 99.3 |
| St. Kevin* | 24 | 104.7 |
| St. Margaret* | 13 | 131.9 |
| St. Mary* | 5 | 112.2 |
| St. Patrick* | 16 | 101.7 |
| Total Parochial Schools | 271 | 110.4 |
| Private School | | |
| Berea* | 7 | 89.1 |

* Grade 6 Only

Table V-7 gives a breakdown by grade at each school for the number and percents of students who attained the minimum NCE gain specified in the Title I program objectives. This table yields some very specific information. The interested reader, for instance, can determine that the St. Theresa, St. Kevin and St. Mary schools had the highest proportion of students achieving the program objective of 1 NCE gain (96% to 100% overall). On the other hand, only 43% of the Title I students at the Roxbury Community School and 50% of the students at the St. Angela School attained this objective.

We can therefore conclude that:

> **The prevalance of attainment of the minimum Title I objective of 1 NCE gain varied from school to school and from class to class within schools.**

Table V-7

Number and Percent of Middle School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point | Percent of Students Who Raised Their Score 1 NCE Point |
|---|---|---|---|
| PUBLIC SCHOOLS | | | |
| Mary Curley | | | |
| 6 | 36 | 35 | 97% |
| 7 | 29 | 26 | 90% |
| 8 | 30 | 19 | 63% |
| Total | 95 | 80 | 84% |
| Dearborn | | | |
| 6 | 25 | 22 | 88% |
| 7 | 24 | 16 | 67% |
| 8 | 18 | 9 | 50% |
| Total | 67 | 47 | 70% |
| Gavin | | | |
| 6 | 38 | 27 | 71% |
| 7 | 28 | 19 | 68% |
| 8 | 29 | 23 | 79% |
| Total | 95 | 69 | 73% |
| Irving | | | |
| 6 | 27 | 24 | 89% |
| 7 | 19 | 11 | 58% |
| 8 | 11 | 7 | 64% |
| Total | 57 | 42 | 74% |
| Theodore Roosevelt | | | |
| 6 | 16 | 12 | 75% |
| 7 | 19 | 13 | 68% |
| 8 | 7 | 5 | 71% |
| Total | 42 | 30 | 71% |
| Lewis | | | |
| 6 | 32 | 23 | 72% |
| 7 | 33 | 24 | 73% |
| 8 | 26 | 19 | 73% |
| Total | 91 | 66 | 73% |

Table V-7 (Cont.)

Number and Percent of Middle School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point | Percent of Students Who Raised Their Score 1 NCE Point |
|---|---|---|---|
| PUBLIC SCHOOLS (CONT.) | | | |
| McCormack (NCEC) | | | |
| 6 | 65 | 57 | 88% |
| 7 | 22 | 18 | 82% |
| 8 | 60 | 47 | 78% |
| Total | 147 | 122 | 83% |
| PAROCHIAL SCHOOLS | | | |
| Gate of Heaven | | | |
| 6 | 14 | 7 | 50% |
| 7 | 12 | 4 | 33% |
| 8 | 12 | 1 | 8% |
| Total | 38 | 12 | 31% |
| Holy Name | | | |
| 6 | 12 | 12 | 100% |
| 7 | 9 | 8 | 89% |
| 8 | 10 | 8 | 80% |
| Total | 31 | 28 | 90% |
| Our Lady of Lourdes | | | |
| 6 | 14 | 7 | 50% |
| 7 | 15 | 10 | 67% |
| 8 | 10 | 7 | 70% |
| Total | 39 | 24 | 62% |
| St. Augustine | | | |
| 6 | 11 | 9 | 82% |
| 7 | 10 | 3 | 30% |
| 8 | 11 | 4 | 36% |
| Total | 32 | 16 | 50% |
| St. Brigid | | | |
| 6 | 17 | 14 | 82% |
| 7 | 6 | 6 | 100% |
| 8 | 5 | 3 | 60% |
| Total | 28 | 23 | 82% |

Table V-7 (Cont.)

Number and Percent of Middle School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point | Percent of Students Who Raised Their Score 1 NCE Point |
|---|---|---|---|
| PAROCHIAL SCHOOLS (CONT.) | | | |
| St. Theresa | | | |
| 6 | 13 | 13 | 100% |
| 7 | 7 | 6 | 86% |
| 8 | 7 | 7 | 100% |
| Total | 27 | 26 | 96% |
| Blessed Sacrament | | | |
| 6 | 14 | 11 | 79% |
| St. Angela | | | |
| 6 | 4 | 2 | 50% |
| St. Kevin | | | |
| 6 | 24 | 23 | 96% |
| St. Margaret | | | |
| 6 | 13 | 12 | 92% |
| St. Mary | | | |
| 6 | 5 | 5 | 100% |
| St. Patrick | | | |
| 6 | 16 | 11 | 69% |
| PRIVATE SCHOOL | | | |
| Berea | | | |
| 6 | 7 | 3 | 43% |

Table V-8 compares the NCE gains of public school students having regular Title I small group instruction and those participating in the New Century Lab Program. As can be seen, the overall average gain of the New Century Lab students exceeded that of the regular Title I students (12.3 compared to 10.9). This same lead held true in the seventh and eighth grades, but in the sixth grade the regular Title I students had a greater gain (12.2 compared to 10.7).

The New Century Lab program was given to all Title I students at the Lewis School and to a portion of students at the McCormack School.

Table V-8 shows that the New Century Lab students at the McCormack School achieved a greater pre to post test gain (13.0 NCE's) than the regular Title I students (9.5).

Table V-8

A Comparison of NCE Scores Between Students Having Small Group Instruction and Those Having NCEC Instruction at the McCormack School

| | McCormack School | | | |
|---|---|---|---|---|
| | N | Pre NCE | Post NCE | Gain |
| Regular Students | 47 | 23.4 | 32.9 | 9.5 |
| NCEC Students | 100 | 28.3 | 41.3 | 13.0 |

We can conclude that:

> On the average, New Century Lab students at the Middle Schools evaluated achieved greater pre-to-post test gains than regular Title I students.

## 2. Language Arts Results for Middle School Students

The objectives for the Title I program in language arts were stated as follows:

> Given an individualized 45 minute instructional period in language arts, one day a week for 35 weeks, the Title I students will show an increase of one normal curve equivalent score as measured by the appropriate level of the California Achievement Test, 1977-1978 Edition.

The results of the Language Arts subtests on the California Achievement Test are presented in tables V-9, V-10 and V-11. Test score results are reported first for public school students, second for parochial and private school students, and third for all middle school students.

An examination of the following tables indicate that for all middle school grades mean pre-post test gain exceeded the target of 1.0 NCE points.

### Results of Public School Students - Language Arts

Table V-9 reports the Language Arts results for Public middle school students. Gains made at all grade levels and on all subtests far exceeded the targeted 1 NCE point. The highest gain was made by sixth grade students in language expression (9.3). This gain surpassed the gain made by seventh and eighth grade students by more than five points.

On the language mechanics subtest seventh grade students made the largest NCE gain (6.8). However, gains made by sixth and eighth grade students were also large, 5.8 and 5.6 respectively.

On the spelling subtest seventh grade students again made the largest gain (6.0 points). This gain was followed by a gain of 4.2 points for eighth grade students and 3.7 points for sixth grade students.

The total language scores combines the language mechanics and language expression subtests. Sixth grade students made the largest gain (8.8).

We can conclude that:

On pre-post California Achievement Test of Language Arts public middle school students in all three grades met or exceeded the target of 1.0 gains in NCE points.

Sixth grade students made the largest total language NCE gains. The largest spelling NCE gains were made by seventh grade students.

Table V-9

Summary of NCE Scores on the Language Arts Subtests
on the California Achievement Tests
for Public Middle School Students

| Grade | N | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|
| | | SPELLING | | |
| 6 | 143 | 37.5 | 41.2 | 3.7 |
| 7 | 134 | 34.6 | 40.6 | 6.0 |
| 8 | 118 | 39.5 | 43.7 | 4.2 |
| | | LANGUAGE MECHANICS | | |
| 6 | 142 | 29.5 | 35.3 | 5.8 |
| 7 | 132 | 28.5 | 35.3 | 6.8 |
| 8 | 117 | 28.7 | 34.3 | 5.6 |
| | | LANGUAGE EXPRESSION | | |
| 6 | 120 | 26.8 | 36.1 | 9.3 |
| 7 | 127 | 28.1 | 31.2 | 3.1 |
| 8 | 97 | 25.8 | 29.6 | 3.8 |
| | | TOTAL LANGUAGE | | |
| 6 | 119 | 26.0 | 34.8 | 8.8 |
| 7 | 123 | 26.6 | 31.8 | 5.2 |
| 8 | 94 | 25.3 | 31.5 | 6.2 |

**Results of Parochial and Private School Students - Language Arts**

Table V-10 reports the Language Arts results for Parochial and Private School students. NCE gains exceed the targeted 1 NCE point on all subtests and at all grade levels.

For **Total Language** the largest NCE gain was made by seventh grade students (6.2). Sixth and eighth grade students made gains of 4.1 and 4.8 respectively.

In looking at the **spelling** subtest gains were fairly consistent for sixth and seventh grade students (6.1 and 6.0). Gains made by eighth grade students were 5.3.

On the **Language Mechanics** subtest the highest gains were made by seventh grade students (4.8) followed by eighth grade students (4.2). Gains made by sixth grade students were lower at 2.9 points.

On the **Language Expression** subtest the highest gains were made by seventh grade students (5.2) followed by eighth grade students (5.0) and sixth grade students (4.4).

We can conclude that:

> **On pre-post California Achievement Tests of Language Arts parochial and private students in all three grades and on all three subtests met or exceeded the target of 1.0 gains in NCE points.**
>
> **Grade seven students had the largest total language NCE gain.**

Table V-10

Summary of NCE Scores on the Language Arts Subtests
on the California Achievement Tests
for Parochial and Private Middle School Students

| Grade | N | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|
| | | SPELLING | | |
| 6 | 83 | 43.9 | 50.0 | 6.1 |
| 7 | 54 | 47.0 | 53.0 | 6.0 |
| 8 | 59 | 48.6 | 53.9 | 5.3 |
| | | LANGUAGE MECHANICS | | |
| 6 | 93 | 47.3 | 50.2 | 2.9 |
| 7 | 57 | 44.3 | 49.1 | 4.8 |
| 8 | 58 | 46.7 | 50.9 | 4.2 |
| | | LANGUAGE EXPRESSION | | |
| 6 | 83 | 46.4 | 50.8 | 4.4 |
| 7 | 57 | 45.4 | 50.6 | 5.2 |
| 8 | 57 | 43.1 | 48.1 | 5.0 |
| | | TOTAL LANGUAGE | | |
| 6 | 82 | 46.3 | 50.4 | 4.1 |
| 7 | 57 | 44.4 | 50.6 | 6.2 |
| 8 | 56 | 44.5 | 49.3 | 4.8 |

Comparing Language Arts Results - Public and Parochial/Private School Students

A comparison of subtest results at grades six, seven, and eight between public and parochial/private school students shows that while public school students did better on some subtests, parochial/private students did better on others.

On the spelling subtest, except in grade seven where the results are the same, private school students made larger gains. On the language mechanics subtest public school students did consistently better. On the language expression subtests gains made by sixth graders were higher in public schools while gains made by seventh and eighth graders were larger in the parochial/private schools. Results of the total language test show public school students scoring higher at the sixth and eighth grade levels while private school students made larger gains at the seventh grade level.

Table V-11 presents the total language arts results for all middle school students. Gains range from 2.9 to 6.2 NCE points.

Table V-11

Summary of NCE Scores on the Language Arts Subtests on the California Achievement Tests for All Public Middle School Students

| Grade | N | Pre NCE | Post NCE | Gain |
|---|---|---|---|---|
| | | SPELLING | | |
| 6 | 143 | 37.5 | 41.2 | 3.7 |
| 7 | 134 | 34.6 | 40.6 | 6.0 |
| 8 | 118 | 39.5 | 43.7 | 4.2 |
| | | LANGUAGE MECHANICS | | |
| 6 | 142 | 29.5 | 35.3 | 5.8 |
| 7 | 132 | 28.5 | 35.3 | 6.8 |
| 8 | 117 | 28.7 | 34.3 | 5.6 |
| | | LANGUAGE EXPRESSION | | |
| 6 | 120 | 26.8 | 36.1 | 9.3 |
| 7 | 127 | 28.1 | 31.2 | 3.1 |
| 8 | 97 | 25.8 | 29.6 | 3.8 |
| | | TOTAL LANGUAGE | | |
| 6 | 119 | 26.0 | 34.8 | 8.8 |
| 7 | 123 | 26.6 | 31.8 | 5.2 |
| 8 | 94 | 25.3 | 31.5 | 6.2 |

3. Results of the Achievement of Performance Objectives

Middle school students were rated on their achievement of performance objectives. These objectives are fully described in the document entitled Reading Performance Objectives, 1980-1981-1982 for the City of Boston. According to this document, the reading performance objectives are the foundation of the instructional program. The overall program objective was:

> Given approximately 45 minutes of instruction 5 days per week for the school year with no more than 11% absenteeism.
>
> o Title I students will successfully accomplish 85% of the objectives outlined for her/his instruction level.

For middle school students, performance objectives were specified in six different categories: word analysis, vocabulary, comprehension, study skills, language arts, and listening.

In the following analysis, the first 61 objectives are combined under a heading entitled "Reading." The eight language arts objectives are reported separately and the listening skills objectives are omitted because there was too much missing data for a reliable analysis.

The data reported was obtained from Performance Objective Summary Sheets filled out by the Title I teachers during the year. On these sheets the teachers put a check mark next to each objective achieved by each student.

Table V-12 presents the number and percent of students meeting 85% or more of the objectives at each grade level in the Public, and Parochial Schools. Data is not included for the private schools (which had Title I classes in sixth grade only) because they used elementary school objectives.

As Table V-12 shows, a greater proportion of parochial school students met the expected number of reading objectives (38%) and language objectives (54%) than did their public schools counterparts. The parochial school students held their lead over the public school students at every grade level,

except for the New Century Lab students in grade six.

A comparison of the regular and New Century lab (NCEC) Title I programs in the public school students achieved 85% of objectives in the sixth and seventh grades, but the reverse was true in the ninth grade. It should be noted, however, that none of the NCEC students at the Lewis School achieved 85%, while NCEC students at the McCormack School were rated much higher.

Table V-12

Achievement of Performance Objectives - Middle School Students

| School Type** and Grade | N of Students Rated | Students Achieving ≥ 85% Objectives | | | |
|---|---|---|---|---|---|
| | | Reading(61 objs.) | | Language Arts(8 objs.) | |
| | | N | % | N | % |
| PUBLIC SCHOOLS | | | | | |
| 6 Regular | 221 | 56 | 25% | 75 | 34% |
| NCEC* | 114 | 44 | 39% | 54 | 47% |
| 7 Regular | 243 | 88 | 36% | 46 | 19% |
| NCEC* | 77 | 23 | 30% | 22 | 29% |
| 8 Regular | 172 | 58 | 34% | 53 | 31% |
| NCEC* | 74 | 17 | 23% | 17 | 23% |
| Total Public | 901 | 286 | 32% | 267 | 30% |
| PAROCHIAL SCHOOLS | | | | | |
| 6 | 93 | 28 | 30% | 41 | 44% |
| 7 | 61 | 24 | 39% | 35 | 57% |
| 8 | 69 | 32 | 46% | 45 | 65% |
| Total Parochial | 223 | 84 | 38% | 121 | 54% |
| GRAND TOTAL | 1,124 | 370 | 33% | 388 | 35% |

* None of the New Century (NCEC) students at the Lewis School were rating achieving ≥ 85% of objectives while more than half of the NCEC students at the McCormack School were rated achieving ≥ 85% objectives at every grade level.

** Data for Private School sixth grade is not included because they used different objectives.

We can conclude that:

> Using the measure of 85% accomplishment of a greater proportion of performance objectives, a greater proportion of parochial than public, and NCEC than regular Title I students, achieved the goal.

## VI. HIGH SCHOOL READING/LANGUAGE ARTS PROGRAM

### A. Program Description

In Districts II, III and VI the Reading/Language Arts School Program has been implemented in three high schools. There were 286 high school students enrolled in the program in these three districts.

The focus of the Title I project is on remediating the individual student, using various on-level reading and writing materials. Informal and standardized diagnostic tests are given to identify strengths and weaknesses. Teachers develop specific performance objectives for each student and individualize programs. Systematic lesson planning supports the individualized aspect of instruction. Students in the Reading/Language Arts component meet with their teacher and paraprofessional one period each day, five days a week for about 45 minutes each period, to the extent that scheduling permits.

By the end of the year, students are expected to increase reading and language scores as measured by the Metropolitan Achievement Tests, 1978 Edition, in reading and the California Achievement Test, Form C-D in language arts. Pre-tests were administered in October and post-tests were administered in May. The growth anticipated as a terminal measure is an increase of one normal curve equivalent (NCE) score.

Specific objectives which the tests measure are:

> Given a forty-five minute instruction period in reading, four days a week for thirty-five weeks, the Title I students will show an increase of one normal curve equivalent score, as measured by the appropriate level of the Metropolitan Achievement Reading Survey Test.
>
> Given an individualized forty-five minute instructional period in language arts, one day a week for thirty five weeks, the Title I students will show an increase of one normal curve equivalent score as measured by the appropriate level of the California Achievement Test, 1977-1978 Edition.

B. Summative Evaluation Results

Of the 286 high school students enrolled in the Title I program in the three districts being evaluated, 184 were pre and post tested on the Metropolitan Achievement Test in reading. In addition, some 120 students were pre-post tested on the California Achievement Test in Language Arts. NCE gains on test scores, attendance data, and teachers ratings of attainment of performance objectives will be reported for these students on the following pages.

1. Reading

Table VI-1 summarizes the mean NCE gains on the Metropolitan Achievement Test for each of the high school grades.

Table VI-1

Summary of NCE Reading Scores of High School Students on the Metropolitan Achievement Test by Grade

| GRADE | N | Mean NCE Scores Pre | Post | Mean Gain |
|---|---|---|---|---|
| 9 | 99 | 28.1 | 30.9 | 2.8 |
| 10 | 61 | 23.9 | 26.3 | 2.4 |
| 11 | 18 | 13.4 | 17.3 | 3.9 |
| 12 | 6 | 20.6 | 22.8 | 2.2 |
| Total | 184 | 25.0 | 27.8 | 2.8 |

As Table VI-1 shows, the mean gain ranged from 2.2 NCE's for the twelfth grade to 3.9 NCE's for the 11th grade, with an overall average gain of 2.8 NCE's. In all High School grades the mean NCE gain exceeded the 1.0 NCE gain specified in the program objective.

We can conclude that:

> **The average NCE gain for the Title I ninth, tenth, eleventh and twelfth graders in the districts being evaluated exceeded the program objective of a 1.0 NCE gain.**

Table VI-2 distinguishes between the mean NCE gains of public and parochial school students in the high school grades. As the table shows, the average gain for the 138 public school students was 2.0 NCE's, while the average gain for the 46 parochial school students was 5.1.

Table VI-2

Summary of NCE Reading Scores of High School Students on the Metropolitan Achievement Test by School Type and Grade

| PUBLIC SCHOOLS | | | | |
|---|---|---|---|---|
| | | Mean NCE Scores | | Mean |
| GRADE | N | Pre | Post | Gain |
| 9 | 70 | 22.9 | 24.7 | 1.8 |
| 10 | 49 | 24.9 | 26.6 | 1.7 |
| 11 | 17 | 14.1 | 17.6 | 3.5 |
| 12 | 2 | 3.9 | 13.6 | 9.7 |
| Total | 138 | 22.3 | 24.3 | 2.0 |

| PAROCHIAL SCHOOLS | | | | |
|---|---|---|---|---|
| | | Mean NCE Scores | | Mean |
| GRADE | N | Pre | Post | Gain |
| 9 | 29 | 40.5 | 46.1 | 5.6 |
| 10 | 12 | 19.6 | 25.0 | 5.4 |
| 11 | 1 | 1.0 | 13.1 | 12.1 |
| 12 | 4 | 29.0 | 27.5 | -1.5 |
| Total | 46 | 33.2 | 38.3 | 5.1 |

It is less reliable to make a grade by grade comparison for public and parochial school students because some grades (e.g. twelfth grade public and eleventh grade parochial) had only one or two sets of pre-post test scores

available. With this cautionary note, it can nonetheless be seen that the average gain among parochial students was higher at every grade level except for the twelfth grade where small numbers of scores were compared.

Table VI-3 allows us to see the numbers and percentages of students in each grade level who met the minimum program objective of a 1.0 NCE gain. This information is also presented separately by public and parochial school type.

Table VI-3

Number and Percent of High School Students Who Increased Their Scores One Normal Curve Equivalent (NCE) or More Between Pre and Post Testing Dates on the Metropolitan Achievement Test by School Type and Grade

| GRADE | N | N of Students Who Raised Their Score 1 NCE Point | Percent of Students Who Raised Their Score 1 NCE Point |
|---|---|---|---|
| Public School | | | |
| 9 | 70 | 27 | 39% |
| 10 | 49 | 25 | 51% |
| 11 | 17 | 9 | 53% |
| 12 | 2 | 2 | 100% |
| Total | 138 | 63 | 46% |
| Parochial Schools | | | |
| 9 | 29 | 20 | 69% |
| 10 | 12 | 8 | 67% |
| 11 | 1 | 1 | 100% |
| 12 | 4 | 2 | 50% |
| Total | 46 | 31 | 67% |
| TOTAL HIGH SCHOOL POPULATION | 184 | 94 | 51% |

As Table VI-3 shows, only 51 percent of all the high school students who were pre and post tested raised their scores by at least 1.0 NCE point. While this is a majority, 49 percent of the students did not meet the objective.

When the Public and Parochial school students are compared, it can be seen that fewer than half of the public high school students pre-post tested raised their scores at least 1.0 NCE while more than half (67%) of the parochial students achieved this objective.

Grade by grade comparisons are less reliable, especially for those grades which have only a few available scores; nonetheless, read with caution they do show that at all grade levels except for the 12th, a higher proportion of parochial school students obtained a 1.0 NCE point gain than did the public school students.

We can conclude that:

> Title I program gains of at least 1.0 NCE points were found in only 51 percent of the students evaluated at the high school level. The remaining 49 percent held their own or slipped behind their position relative to the national norming group.

We can also conclude that:

> Among the students pre-post tested at the high school level, 67 percent of the parochial school students attained at least a 1.0 NCE gain, while fewer than half of the public school students obtained this minumum program objective.

Does school attendance relate to NCE gains? Table VI-4 shows that the higher scoring parochial student groups had a greater average attendance record than did the public school group. This relationship holds true at every grade level, except for grade 12, where very small numbers of students are being compared.

We can conclude that:

> On the average there does appear to be a relationship between attendance and NCE gains at the high school level.

Table VI-4

Mean High School Attendance by Grade

| PUBLIC HIGH SCHOOLS | | |
|---|---|---|
| GRADE | N | MEAN ATTENDANCE |
| 9 | 70 | 89.5 |
| 10 | 49 | 108.1 |
| 11 | 17 | 105.5 |
| 12 | 2 | 99.0 |
| Total | 138 | 98.2 |
| **PAROCHIAL HIGH SCHOOL** | | |
| GRADE | N | MEAN ATTENDANCE |
| 9 | 29 | 125.0 |
| 10 | 12 | 123.4 |
| 11 | 1 | 126.0 |
| 12 | 4 | 105.5 |
| Total | 46 | 122.9 |

Table VI-5 compares the NCE gains in the Metropolitan Achievement Test for the Title I students at the three high schools involved in this study.

Table VI-5

Summary of NCE Reading Scores of High School Students on the Metropolitan Achievement Test by School

| School | N | Pre-Test | Post-Test | Gain |
|---|---|---|---|---|
| 75 Jamaica Plain | 101 | 25.5 | 26.3 | 0.8 |
| 76 South Boston | 37 | 13.5 | 18.9 | 5.4 |
| 77 Cardinal Cushing | 46 | 33.2 | 38.3 | 5.1 |

Table VI-5 shows that the average NCE gain at South Boston and Cardinal Cushing high schools was over 5.0 NCE points, while it was under the program objective of 1.0 NCE points at Jamaica Plain High School.

Table VI-6 shows the numbers and percents of students at each of these high schools who met the program objective of 1.0 NCE gain. At Jamaica Plain High School, fewer than half of the students met this objective, while more than half met the objective at the other two high schools.

Table VI-6

Number of High School Students Who Increased Their Scores
One Normal Curve Equivalent (NCE) or More between Pre and Post Testing Dates
on the Metropolitan Achievement Test by School and Grade

| PUBLIC SCHOOLS | N Pre & Post Tested | N of Students Who raised Their Score 1.0 or More NCE Points | Percent of Students Who Raised Their Score 1.0 or More NCE Points |
|---|---|---|---|
| Jamaica Plain High | | | |
| Grade 9 | 47 | 14 | 30% |
| Grade 10 | 37 | 17 | 46% |
| Grade 11 | 15 | 9 | 60% |
| Grade 12 | 2 | 2 | 100 |
| Total | 101 | 42 | 42% |
| South Boston High | | | |
| Grade 9 | 23 | 13 | 57% |
| Grade 10 | 12 | 8 | 67% |
| Grade 11 | 2 | 0 | 0% |
| Grade 12 | -- | -- | -- |
| Total | 37 | 21 | 57% |
| Cardinal Cushing High | | | |
| Grade 9 | 29 | 20 | 69% |
| Grade 10 | 12 | 8 | 67% |
| Grade 11 | 1 | 1 | 100% |
| Grade 12 | 4 | 2 | 50% |
| Total | 46 | 31 | 67% |

Table VI-7 shows, however, that the average attendance at Jamaica Plain High School was higher than at South Boston.

Table VI-7

Mean High School Attendance by School

| SCHOOL | N | MEAN ATTENDANCE |
|---|---|---|
| Jamaica Plain | 101 | 100.0 |
| South Boston | 37 | 93.4 |
| Cardinal Cushing | 46 | 122.9 |

From the three previous tables comparing the three high schools evaluated, we can conclude only that:

> The NCE gains on the Metropolitan Achievement Test were higher at Cardinal Cushing High School and South Boston High School than they were at Jamaica Plain High School. Attendance records alone do not account for this difference.

2. Language Arts Results for High School Students

The language arts objective is stated as follows:

> Given an individualized 45 minute instructional period in language arts, one day a week for 35 weeks, the Title I students will show an increase of one normal curve equivalent score as measured by the appropriate level of the California Achievement Test, 1977-1978 Edition.

Students were pretested in October and post-tested in April on the California Achievement Test. Test score results of public and parochial students are discussed separately.

Results for Public School Students

Table VI-8 presents the language arts test score results for public high school studerts. Students in grades nine and eleven exceeded the targeted 1.0 NCE point gain. Tenth grade students exceeded the 1.0 NCE point gain in Spelling and Language Expression only. Scores for twelfth grade students fell below the targetted 1.0 NCE mark.

Eleventh graders made the highest NCE gains in all language arts subsets. The Total Language score was also highest for eleventh grade students (3.1). The Total Language score for ninth graders was 1.4.

We can conclude that:

> On pre-post California Achievement Tests of Language Arts, public school students in grades nine and eleven exceeded the target of 1.0 gain in NCE points.

Table VI-8

Summary of NCE Scores on the Language Arts Subtests of the California Achievement Tests for Public High School Students

| | N | Pre NCE Mean | Post NCE Mean | Mean Gain |
|---|---|---|---|---|
| PUBLIC SCHOOLS | | | | |
| | | SPELLING | | |
| Grade 9 | 53 | 36.2 | 37.5 | 1.3 |
| Grade 10 | 58 | 36.3 | 38.6 | 2.3 |
| Grade 11 | 14 | 30.4 | 33.5 | 3.1 |
| Grade 12 | 2 | 29.0 | 29.0 | 0.0 |
| | | LANGUAGE MECHANICS | | |
| Grade 9 | 54 | 27.7 | 29.2 | 1.5 |
| Grade 10 | 59 | 31.2 | 31.8 | 0.6 |
| Grade 11 | 15 | 26.1 | 29.7 | 3.6 |
| Grade 12 | 2 | 40.5 | 32.5 | -8.0 |
| | | LANGUAGE EXPRESSION | | |
| Grade 9 | 51 | 29.1 | 30.5 | 1.4 |
| Grade 10 | 58 | 29.5 | 31.2 | 1.7 |
| Grade 11 | 16 | 24.3 | 26.6 | 2.3 |
| Grade 12 | 2 | 24.0 | 24.0 | 0.0 |
| | | TOTAL LANGUAGE | | |
| Grade 9 | 49 | 27.8 | 29.2 | 1.4 |
| Grade 10 | 55 | 28.5 | 29.2 | 0.7 |
| Grade 11 | 14 | 24.1 | 27.2 | 3.1 |
| Grade 12 | 2 | 29.5 | 27.0 | -2.5 |

Results for Parochial Students

Language Arts test score results for the parochial high school included in this evaluation are presented in Table VI-9. With two exceptions, students at all grade levels on all subtests exceeded the targeted 1.0 NCE point gain.

On individual subtests, the highest gains were made in Spelling. However, as there were fewer upper class students than ninth and tenth graders it is difficult to make comparisons across grade levels. Nevertheless, one eleventh grade student should be commended for making a 32 NCE point gain.

Table VI-9

Summary of Mean NCE scores on the Language Arts Subtests of the California Achievement Tests for Parochial High School Students

| | N | Pre NCE Mean | Post NCE Mean | Mean Gain |
|---|---|---|---|---|
| PAROCHIAL SCHOOL | | | | |
| | | SPELLING | | |
| Grade 9 | 28 | 43.0 | 53.8 | 10.8 |
| Grade 10 | 12 | 31.3 | 43.2 | 11.9 |
| Grade 11 | 1 | 13.0 | 45.0 | 32.0 |
| Grade 12 | 4 | 26.8 | 44.0 | 17.2 |
| | | LANGUAGE MECHANICS | | |
| Grade 9 | 28 | 42.8 | 48.6 | 5.8 |
| Grade 10 | 12 | 33.3 | 40.3 | 7.0 |
| Grade 11 | 1 | 29.0 | 28.0 | -1.0 |
| Grade 12 | 3 | 28.0 | 34.0 | 6.0 |
| | | LANGUAGE EXPRESSION | | |
| Grade 9 | 28 | 41.8 | 44.3 | 2.5 |
| Grade 10 | 11 | 33.6 | 39.4 | 5.8 |
| Grade 11 | 1 | 16.0 | 27.0 | 11.0 |
| Grade 12 | 2 | 34.0 | 32.0 | -2.0 |
| | | TOTAL LANGUAGE | | |
| Grade 9 | 27 | 41.5 | 45.8 | 4.3 |
| Grade 10 | 11 | 32.6 | 39.8 | 7.2 |
| Grade 11 | 1 | 21.0 | 27.0 | 6.0 |
| Grade 12 | 2 | 32.0 | 34.0 | 2.0 |

For the Total Language test the NCE gain ranged from 2.0 to 7.2 points. The highest gains were made by the tenth graders (7.2).

We can conclude that:

> **For the Total Language and Spelling tests, parochial students at all grade levels had mean gains exceeding the 1.0 NCE target.**

Comparing Language Arts Test Scores between Public and Parochial

The overall gains made by parochial students were much larger than those made by public school students. Although the smaller number of parochial

school students make comparisons difficult, a cautious comparison shows parochial students having larger gains at most grade levels. The difference is especially noticeable on the Spelling subtest where NCE gains made by parochial students averaged in excess of 10 points while the gains made by public school students averaged less than five NCE points.

Table VI-10 presents the Language Arts score results on the California Achievement Test for all high school students. From this table we can conclude that:

> Except in grade twelve, the average gain for all high school students exceeded the target of 1.0 NCE points.

Table VI-10

Summary of Mean NCE scores on the Language Arts Subtests of the California Achievement Tests for Combined Public and Parochial High School Students

| | N | Pre NCE Mean | Post NCE Mean | Mean Gain |
|---|---|---|---|---|
| TOTAL HIGH SCHOOL | | | | |
| | | SPELLING | | |
| Grade 9 | 81 | 38.5 | 43.1 | 4.6 |
| Grade 10 | 70 | 35.4 | 39.4 | 4.0 |
| Grade 11 | 15 | 29.3 | 34.3 | 5.0 |
| Grade 12 | 6 | 27.5 | 39.0 | 11.5 |
| | | LANGUAGE MECHANICS | | |
| Grade 9 | 82 | 32.9 | 35.8 | 2.9 |
| Grade 10 | 71 | 31.5 | 33.2 | 1.7 |
| Grade 11 | 16 | 26.3 | 29.6 | 3.3 |
| Grade 12 | 5 | 33.0 | 33.4 | 0.4 |
| | | LANGUAGE EXPRESSION | | |
| Grade 9 | 79 | 33.6 | 35.4 | 1.8 |
| Grade 10 | 69 | 30.1 | 32.5 | 2.4 |
| Grade 11 | 17 | 23.8 | 26.6 | 2.8 |
| Grade 12 | 4 | 29.0 | 28.0 | -1.0 |
| | | TOTAL LANGUAGE | | |
| Grade 9 | 76 | 32.7 | 35.1 | 2.4 |
| Grade 10 | 66 | 29.2 | 31.5 | 2.3 |
| Grade 11 | 15 | 23.9 | 27.2 | 3.3 |
| Grade 12 | 4 | 30.8 | 30.5 | -0.3 |

3. Results of the Achievement of Performance Objectives

During the year, high school students were rated on their achievement of performance objectives. These objectives are fully described in the document entitled Reading and Language Arts Performance Objectives, 1981-1982 for the City of Boston. According to this document, the performance objectives are the foundation of the instruction program. The overall program objective is:

> **Given approximately 45 minutes of instruction 5 days per week for the school year, with no more than 11% absenteeism.**
>
> - **Title I students will successfully accomplish 85% of the objectives outlined for his/her instruction level.**

The performance objectives for high school Title I students concerned four areas: Word Analysis (3 objectives); Vocabulary (9 objectives); Comprehension Skills (20 objectives); and Study Skills (17 objectives).

In the analyses following, the first three areas are grouped together as Reading Objectives (32) and the 17 Study Skill objectives are reported separately. Objectives are reported by grade level.

The data reported was obtained from Performance Objective Summary Sheets filled out by the Title I teachers during the year. On these sheets the teachers put a check mark next to each objective achieved by each student. The total number of objectives for each child was also recorded.

Table VI-11 presents the number and percent of students meeting 85% or more of each group of objectives at each grade level in the public and parochial schools. As Table VI-11 shows, overall, a greater proportion of public school students met the expected number of reading objectives (93%) and study skill objectives (25%) than did their parochial school counterparts. None of the parochial school students were rated as achieving 85% of the study

skill objectives at any of the high school grade levels; on the other hand, more (but less than a third) of the public school students met this goal. The high school students in general fared better on the reading objectives than on the study skill objectives.

Table VI-11

Achievement of Performance Objectives by High School Students

| School Type and Grade | N of Students Rated | Students Achieving ≥85% of Objectives 32 Reading N | % | 17 Study Skill N | % |
|---|---|---|---|---|---|
| PUBLIC SCHOOLS | | | | | |
| Grade 9 | 97 | 41 | 42% | 20 | 21% |
| Grade 10 | 67 | 48 | 72% | 21 | 31% |
| Grade 11 | 24 | 10 | 42% | 7 | 29% |
| Grade 12 | 2 | 2 | 100% | 0 | 0% |
| Total Public | 190 | 101 | 93% | 48 | 25% |
| PAROCHIAL SCHOOL* | | | | | |
| Grade 9 | 29 | 29 | 100% | 0 | 0% |
| Grade 10 | 13 | 2 | 15% | 0 | 0% |
| Grade 11 | 1 | 1 | 100% | 0 | 0% |
| Grade 12 | 4 | 4 | 100% | 0 | 0% |
| Total Parochial School | 47 | 36 | 77% | 0 | 0% |
| Grand Total | 237 | 137 | 58% | 48 | 20% |

* There was only one parochial high school in the three districts evaluated this year.

We can conclude that:

**Overall, more public than parochial school students achieved 85% of the performance objectives.**

We can also conclude that:

**In general the high school students did much better on the reading objectives than on the study skill objectives.**

## VII. POTENTIALLY GIFTED PROGRAM (Holland School)

The Title I Potentially Gifted Program at the Holland School was included in our evaluation because it was a pilot program. The Holland School is in District V.

### A. Program Description

The Title I Potentially Gifted Program was designed:

1. to identify students from disadvantaged areas who are behind academically but show signs of potential giftedness;
2. to remediate the weaknesses of these students in reading or math using an independent study curriculum method; and
3. to teach skills in the areas of researching and creativity, also using the independent study method.

The students were identified in October from among the pool of already identified regular Title I 4th and 5th grade students at the Holland. Ten students were identified for the Potentially Gifted program based on parent and teacher checklists and small group measures.

Each of these ten students receives regular Title I services five days a week for forty-five minutes per day. In addition, for three days each week the ten students in the Potentially Gifted receive an **additional** forty-five minutes of small group instruction. This additional instruction is divided into two classes with a ratio of five students with one teacher and one paraprofessional.

Through independent study projects utilizing the students' specific interests and strengths, the Performance Objectives aimed at each student's level were targeted to be met and exceeded. Researching skills and creativity skills were also to be taught.

To appropriately manage the Potentially Gifted program, Title I teachers were given two forty-five minute planning periods per week.

B. Summative Evaluation Results

Since the Holland School was not in one of the three districts being regularly evaluated this year, pretest measures on the Metropolitan Achievement Test were available only for the pilot students. For the eight potentially gifted students who were pre and post tested, the mean NCE pretest score was 42.9 while the post-test scores averaged 37.15, a decline of 5.75 NCE points. The standard deviations for the pre and post tests were 4.17 and 7.70 respectively.

A comparison group of students who were not in the Potentially Gifted program, but were in the same school classes, taught by the same Title I teacher, and receiving only the regular Title I small group individualized instruction was formed. Table VII-1 presents this data.

Table VII-1

Holland School - Mean NCE Scores on the Metropolitan Achievement Test for Potentially Gifted and Regular Title I Small Group Instruction Comparison Group

| | Potentially Gifted (N = 8 students) | | |
|---|---|---|---|
| | Pre | Post | Gain |
| Means | 42.90 | 37.15 | -5.75 |
| Standard Deviations | 4.17 | 7.70 | 6.58 |
| | Regular Title I Comparison Group (N = 24 students) | | |
| | Pre | Post | Gain |
| Means | --- | 35.80 | --- |
| Standard Deviations | --- | 10.9 | --- |

The eight students in the pilot program who were pre and post tested actually declined in their reading scores by 5.75 NCE points, one of the largest declines observed for any of the elementary schools evaluated. A t-test resulted in a $t = -2.48$ (8 df) which is significant beyond the $p < .05$ level. Thus it can be concluded that:

> **There is evidence of a statistically significant and substantial decline in pre-post reading achievement among the eight students enrolled in the Holland School Pilot Potentially Gifted Program.**

Turning next to a comparison with the regular Title I program students taught by the same teacher at the Holland School, it was found that their post-test Metropolitan NCE scores averaged 35.8 with a standard deviation of 10.9 for the 24 students in the comparison group. A t-test comparing these 24 regular Title I students in the control group with the 8 Pilot Potentially Gifted students gave a $t = 0.38$ (30 df), which is not statistically significant.

We can then conclude that:

> **There is no evidence that the potentially gifted students differed significantly from their regular Title I counterparts, taught by the same teacher on reading post-test scores.**

Next, a comparison was made with the number of days of attendance of the two groups, Potentially Gifted and Control Regular Title I. The data is presented in Table VII-2.

The mean for the potentially gifted students was 104.9 days of attendance while for the regular Title I comparison group the mean was 85.17 days. Thus the Potentially Gifted group attended school (and Title I) aproximately 20 more days during the year.

Table VII-2

Mean Days of Attendance of Potentially Gifted
and Regular Title I Comparison Group at the Holland School

| | Regular Title I (N = 24) | Potentially Gifted (N = 8) | Difference |
|---|---|---|---|
| Means | 85.17 | 104.90 | 19.73 |
| Standard Deviations | 22.21 | 3.64 | |

A t-test of the 19.73 days difference resulted in a t = 4.19 (30 df) significant well beyond the p< .001 level.

We can thus conclude:

> **There is strong evidence that the Potentially Gifted students attended school considerably more days (19.75 days more) than did the regular Title I comparison group.**

Finally, an examination was made of the percent of students meeting the objectives of achieving 85% or more of the Behavior Performance Ratings. As indicated in Table VII-3, ten of the eleven (91%) ratings made on the Reading Performance Objectives for the Potentially Gifted students were above this critical level, while only 16 of 31 (52%) of the ratings for the comparison group were above the critical level.

From Table VII-3 it can be seen that the Potentially Gifted group were much more likely (91% to 52%) to be rated as achieving the goals for each behavioral performance objective set for which they were rated.

From this we can conclude:

> **The potentially gifted students were more likely to achieve their reading performance objectives than were the comparison group of students receiving only regular Title I services.**

Table VII-3

Potentially Gifted and Comparison Group of Regular Title I Students Achievement on Reading Performance Objectives

| | Reading Level | N of * Ratings | N of Ratings Scoring ≥ 85% | Percent of Ratings Scoring ≥ 85% |
|---|---|---|---|---|
| Potentially Gifted | | | | |
| | 3 | 4 | 4 | 100% |
| | 4 | 7 | 6 | 86% |
| Total | | 11 | 10 | 91% |
| Comparison Group | | | | |
| | 1 | 2 | 0 | 0% |
| | 2 | 8 | 6 | 75% |
| | 3 | 15 | 10 | 67% |
| | 4 | 6 | 0 | 0% |
| Total | | 31 | 16 | 52% |

* NOTE - Students can be rated for more than one reading level, so the N of ratings is greater than the N of students in these groups.

In summary, the conclusions which can be drawn from the Holland School Pilot Program for Potentially Gifted Title I students are as follows:

1. There is substandial evidence of an actual <u>decline</u> in NCE reading scores from pre to post testing among the pilot potentially gifted students.

2. Actual post-test NCE reading scores for the regular Title I comparison group and the pilot potentially gifted group were about the same.

3. The potentially gifted group achieved significantly higher attendance during the year, averaging about 20 more days per child attendance compared to the regular Title I comparison group.

4. A much higher proportion (91%) of the ratings for reading performance objectives for the potentially gifted students were above the target criteria than for the regular Title I group (52%).

## Discussion

The above results indicate that the Holland School pilot program for potentially gifted Title I students had mixed results. Students clearly enjoyed the work and the program, and attended school on the average an additional 20 days per year. Furthermore, the teachers rated a much higher proportion of the students as achieving their reading performance objectives. However the objective test score data indicated a substantial and significant decline in performance relative to national norms. As far as test score measured reading skill achievement, the pilot program was no better than the regular Title I program.

Our conclusion is that the Pilot Program was a valuable experience for Title I, and many of the ideas used in it could help to increase student motivation and positive attitudes toward school. On the other hand, given the poor performance on tested reading achievement skills, the Pilot program should not be expanded to other schools at this time. In fact, if it is continued next year, substantial revision of the basic curriculum will be needed to improve reading achievement skills.

This program has strengths which were not part of the evaluation design, nor part of the program description. From observation of the program and as indicated by the attendance data, student self-concept and positive attitude toward school seem to have been increased by this program. These affective outcomes should explicitly become part of the program goals if this potentially gifted pilot program is continued.